

# The Mining Journal

## RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 317.—Vol. XI.]

LONDON: SATURDAY, SEPTEMBER 18, 1841.

[PRICE 6D.]

**HENNOCK and CHRISTOWE MINES, near Chudleigh, Devon.**  
**TO BE SOLD, BY PUBLIC AUCTION, by Mr. WHITEWAY,**  
on Monday, the 24th day of September inst., at Two o'clock in the afternoon,  
at the Breeding House, near Crockham Bridge, in the parish of Hennock, about  
FIFTY TONS of MANGANESE, of excellent quality. Further particulars may be  
known of Captain Henry James, on the Mine.

**MINES AND MACHINERY IN IRELAND FOR SALE.**  
The directors of the Mining Company of Ireland offer for sale the COM-  
PANY'S MINES, within sixteen townlands, the territory of  
DERRYMOON to ARMAUGH, and of the LEAD MINES within twenty-eight town-  
lands, in the manner of TOUGH and barony and county of ARMAUGH, together  
with the powerful STEAM-ENGINE and other MACHINERY erected thereon,  
smithy and other houses, water and water-courses, &c.  
Proposals to be addressed to the directors, under cover, to the undersigned, who  
will furnish all particulars required. By order of the board of directors,  
27, Lower Ormond quay, Dublin, Sept. 16. R. FURDY, Secretary.

**IRONSTONE IN MIDLOTHIAN.**  
**TO BE LET.**—The rapid extension of the Iron Trade in Lanark-  
shire has led several proprietors in the east of Scotland to examine their  
estates, to ascertain if ironstone be so abundant therein as to justify iron works  
being established. Such an examination has been made at Dryden, the property  
of George Mercer, Esq., where TWO SEAMS of BLACKBAND IRONSTONE, of  
good quality and workable thickness, have been opened up, by two miles being  
carried into the ironstone to some distance. There is a good colliery on the  
estate, at which abundance of coal can be commanded, and there is good limestone,  
freestone, and fire clay, and a supply of water. It is believed that the extent of  
ironstone, in the estate of Dryden, and the immediate supply of coal that can be  
commanded, will warrant the erection of blast-furnaces forthwith, so that the sub-  
ject is well worthy the attention and inquiry of parties contemplating entering into  
the iron trade, to whom encouraging terms will be allowed; and it may be added,  
that as the ironstones are understood to pass into adjoining lands, in some of which  
they are yet left, by securing these also, an ironwork, at or near Dryden, might be  
much extended. The mineral field of Dryden is about six miles from Edinburgh  
and eight miles from the shipping port of Leith. The Blackband Ironstone will be,  
in some extent, level free, and, from careful analyses, it is found to contain—in  
No. 1, 42.3 to 10 per cent. of iron; No. 2, 35.10 to 10. An ironwork on the east coast  
of Scotland would command a very considerable home and local sale for pig-iron,  
being nearest the London, Hull, Newcastle, and Dundee markets; and it may be  
safely assumed, that compared with Lanarkshire iron sent to these markets, a  
material saving would arise on the carriage department.  
The mines at Dryden will be shown on application to the proprietor, at Dryden  
House, who, Messrs. Walker and Melville, W. S., George-street, or Messrs. Bald  
and Geddes, mining engineers, Albany street, Edinburgh, may be consulted as to  
conditions of lease.—Dryden House, Aug. 31.

**LANELLY, CARMARTHENSHIRE.**  
**TO BE LET, ON LEASE, AN ELIGIBLE COLLIERY,**  
producing coal suited for steam purposes. The COAL-FIELD consists of two  
three miles, all unworked, lying under about ten acres of land, in a ring fence.  
The pit, which has been lately sunk with a view to opening this coal-field, is nearly  
ready for working coal, is situated within two miles of the Llanelli Harbour, and  
there is a railway already made, leading from the colliery yard to the shipping  
place, a portion of this coal may also be worked by level on the crop of the seams.  
This taking presents many advantages to capitalists, worthy of immediate at-  
tention—the principal expense of winning the coal being already incurred, and  
engines and other materials being now on the spot ready for work, which may be  
taken at a valuation, at the tenant's option. The yard has a smith's shop, and all  
other requisites suitable for carrying on this colliery. An excellent stone quarry,  
and good fire clay may also be worked on the same lands.  
For particulars, and to treat, apply (post paid) to Messrs. Hallett, Robinson, and  
Maude, 14, Great George-street, Westminster, London, with whom a map of the coal-  
field may be seen; or to Mr. Benjamin Jones, solicitor and land agent, Llanelli, who  
will show the premises.—Llanelli, August, 1841.

**TO THE IRON TRADE.—EXTENSIVE MINERAL FIELDS IN THE COUNTY**  
**OF Ayr, SCOTLAND.**

**TO LET, several HUNDRED ACRES of IRONSTONE,**  
consisting of BLACKBAND, and various seams of CLAYBANDS. The  
blackband has a freestone roof, and a bluish loam, and is of unusual thickness,  
and very rich quality. Several seams of coal lie with the ironstone, and in the im-  
mediate neighbourhood there is abundance of coal, and superior lime, at present  
working for country sale. The blackband, coal, and lime, can, for many years,  
be worked level free, without sinking pits, and without machinery. There is good  
freestone, plenty of fire clay, water power can be had (if required), and wood is  
moderate in price. These minerals being all one property, will be let together,  
and at a royalty that will remunerate a tenant at the present price of iron—  
the royalty to rise and fall with the price of pig-iron.—Apply to Mr. James Howell,  
Bart., Auchinleck, Mancheston, North Briton.

**NORTH KENT RAILWAY, from Gravesend to Rochester, via**  
the Thames and Medway Canal. Capital £200,000, in shares of £20 each,  
deposit £10. per share. Proposals may be obtained, and applications for  
shares made at the company's office, No. 42, Lombard-street, London.

**THE PATENT SAFETY FUSE.**  
FOR BLASTING ROCKS IN MINES, QUARRIES, AND FOR SUBMARINE  
OPERATIONS.—This article affords the safest, cheapest, and most expeditious  
mode of effecting this very hazardous operation. From many testimonials to its  
usefulness with which the Manufacturers have been favoured from every part of  
the kingdom, they select the following letter, recently received from John Taylor,  
Esq., F.R.S., &c., &c.:—  
"I am very glad to hear that my recommendations have been of any service to  
you. They have been given from a thorough conviction of the great usefulness of  
the Safety Fuse, and I am quite willing that you should employ my name as evi-  
dence of this."  
Manufactured and sold by the Patentees, RICKFORD, SMITH, and DAVEY,  
Canbore, Cornwall.

**VALE OF NEATH AND SOUTH WALES BREWERY.**  
Capital £125,000, in 6250 shares of £20 each. Dividends payable 10th April  
and 10th October. Deposit £12 per share.

**JOSEPH SHANNON, Esq.,** George Walters, Esq.  
William Brewster, Esq. John White Little, Esq.  
W. H. Buckland, Esq. Joseph Rutherford, Esq.  
The increasing demand for the Vale of Neath ale and porter, both for home con-  
sumption and export, induces the directors to make a further issue of shares, in  
addition to the present subscribed capital of £200,000. Subscribers for shares may  
either participate in the current profits rateably with the original shareholders, or  
take a fixed and limited dividend of 8 per cent. per annum. The option to be sig-  
nified at the time of subscribing. The deposit of £12 per share to be paid on allotment,  
the remaining amount of £8 per share may be paid promptly, or by three  
equal instalments, at intervals of three months. Subscribers will be entitled to the  
benefit of the dividends from time of payment.  
Information relative to the trade and prospects of the concern will be furnished  
by the directors, at the Vale of Neath Brewery, Neath, Glamorganshire, to whom  
applications for shares may be made; or to Mr. G. W. W. Mason, 25, Bucklersbury,  
London.

**SMOKE NUISANCE.—ECONOMY OF FUEL WITHOUT**  
THE NUISANCE FROM SMOKE, by C. W. WILLIAMS'S AIR FURNACE.  
The principle of this furnace consists in the mode by which the air is introduced  
in the gaseous matter evolved from coal, whereby a more perfect combustion of the  
combustion is effected, the process being conducted on true chemical principles,  
as explained by Mr. Williams in his Treatise on the Combustion of Coal. A furnace  
constructed on this principle may, by permission, be daily seen in action at the  
Liverpool and Harrington Water-works, Sefton-street, Liverpool.  
For further information, apply to Messrs. C. W. Williams, & Co., agents, to Wm. Routledge,  
engineer, 28, Princes-street, Manchester, or to Mr. C. W. Williams, Liverpool.

Just published, Part I.  
**COMBUSTION OF COAL, CHEMICALLY & PRACTICALLY**  
CONSIDERED. With coloured plates.  
By CHARLES WYLLIAMS, Esq.  
London: Simpkin, Marshall, & Co., and J. Ward, Birmingham; Wroughton & Wells.

**THE INVENTORS' ADVOCATE, AND JOURNAL OF**  
INDUSTRY, A WEEKLY BRITISH AND FOREIGN MISCELLANY OF SCI-  
ENCE, INVENTIONS, MANUFACTURES, AND ARTS, is the most useful and com-  
prehensive work of the kind published. It contains the scientific intelligence of the  
week; current information on railways and steam navigation; list of patents  
granted and expired; specifications and descriptions of new inventions; reports of  
scientific meetings, and original papers on manufactures and the arts; with a va-  
riety of information interesting to inventors and patentees. It is not only a journal  
of interest for the day, but forms a standard work of reference, valuable to all  
engaged in scientific, manufacturing, and commercial pursuits. Vols. I, II, and III,  
heavily bound, are already published, and the 4th Vol. is now in course of publication.  
The Inventors' Advocate, price 10s. per annum, postage free, is published weekly, by  
the proprietors, at the patent office, No. 10, Strand, London.

**A QUIET INVESTMENT.—SEVEN TO TWENTY-FIVE**  
LEEDS AND SELBY RAILWAY SHARES, on which 1 per cent. is guar-  
anteed for thirty years, price £27 per share. Also, TWENTY HUDDERSFIELD  
CANAL SHARES, at £20; dividend £2 per annum. Apply to Messrs. R. B. Watson  
and Co., sharebrokers, 20, Abchurch-lane, London, Sept. 16.

**THE MINERS' COMPANY.**—The court of assistants of the  
Governor and Company of Copper Miners in England hereby give notice, that  
they will SELL, on Thursday, the 14th day of October next, at noon, at their  
office, in Old Broad-street, ONE THOUSAND TONS of BRITISH TIN, the pro-  
perty of British mining adventurers, and lying at the Miners' Smelting Works, at  
Treveth House, near Penzance, and at Trevel House, in Trevel.  
Best Granulated Tin 20 tons, in lots of 10 blocks each, deposit £10 per lot.  
Refined " 370 " " 10 " " 20 "  
Common " 370 " " 10 " " 20 "  
Ingots (assorted sizes) 30 " " 2 " " 20 "  
Bar (in bris of 4 cwt.) 100 " " 10 " " 20 "  
Prompt 14th January, 1842. No interest or discount. Deposits to be paid on Sa-  
turday, the 14th of October. The sale to commence at Twelve o'clock precisely.  
Catalogues, containing particulars and conditions of sale, will be delivered, either  
at this office, or by the company's brokers, Messrs. Short and Mahony, No. 1, New-  
man's-court, Cornhill.

**THE PUBLIC SALES OF TIN** by the company will henceforth be held quar-  
terly—viz., in January, April, July, and October, and the quantity put up will be  
regulated by the average quarterly consumption.  
N.B.—The company binds itself not to make sales of tin during the quarter be-  
yond the quantity advertised.  
Office of the Governor and Company of Copper Miners in England,  
Old Broad-street, London, August 12.

**THE MINERS' COMPANY.**—The Court of Assistants of the  
Governor and Company of Copper Miners in England hereby give notice, that  
they have this day made a CALL of TEN POUNDS in England hereby give notice, that  
holders of which have not already availed themselves of the option of paying up  
their instalments, such call to be paid on or before the 14th day of October next, at  
the banking-house of Messrs. Glyn, Hallifax, Mills, and Co., Lombard-street, or at  
the offices of the company, Old Broad-street.

**EAST TRETOIL MINING COMPANY.**—The directors  
hereby give notice, that, in pursuance of the authority vested in them by  
the regulations endorsed on the scrip certificates, they hereby CALL for a further  
instalment of FIVE SHILLINGS per share, in full of the capital of this com-  
pany, the same to be paid to Messrs. Barclay, Bevan, Tait, and Co., bankers,  
Lombard-street, London, on or before Monday, 25th day of October next.—The  
scrip certificates, with the bankers' receipts, must be left at the office for the  
purpose of having the payment of the call notified thereon.  
By order of the board of directors, S. BUXTON, Secretary.  
East Tretoil Mining Office, 6, St. Mildred's-court, Poultry, Sept. 13.

**GREAT WHEEL CHARLOTTE MINING ASSOCIATION.**  
The directors hereby give notice, that the HALF YEARLY GENERAL  
MEETING of this association will be held at the George and Vulture Tavern, Corn-  
hill, on Wednesday, the 29th inst., at Two o'clock precisely.—N.B. The new shares  
will be ready for delivery on and after Tuesday, the 7th inst.  
10, Lawrence Poultry-hill, Sept. 3.

**TRELEIGH CONSOLIDATED MINING COMPANY.**—No-  
tice is hereby given, that the ANNUAL GENERAL MEETING of the share-  
holders will be held at the company's office, as under, on Wednesday, the 4th day  
of October next, at Twelve for One o'clock precisely.—By order of the board,  
24, Threadneedle-street, Sept. 16. ROWLAND NICHOLSON, Sec.

**TREGOLLAN MINING COMPANY.—CAUTION.**—Whereas,  
I, SAMUEL STEPHENS CRABB, of Bodmin, in the county of Cornwall, being  
the owner of One Hundred and Twenty shares in the Tregollan Mining Company,  
did, in or about the month of February last, deliver the certificates thereof, num-  
bered respectively 26, 27, 114, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133,  
144, 145, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435,  
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1737, 1738, 173



## PILBROW'S CONDENSING-CYLINDER STEAM-ENGINE.

(From the *Important Advances*.)

The condensing-cylinder steam-engine, invented by Mr. Pilbrow, has lately given rise to much discussion; and as the inventor professes, by this means of condensation, to produce an improvement in the present engines equal in effect to that of Watt on the engines of Newcomen, the plan deserves serious consideration. If the statements and calculations of the inventor be correct, his engines deserve to be universally and at once substituted for the condensing engines in common use; if, on the contrary, his calculations are fallacious, it is desirable that the foundation of the error should be pointed out, and that the real merits and demerits of the plan be impartially examined, to prevent the pursuance of experiments in a wrong direction, and upon mistaken inferences.

The objects which Mr. Pilbrow proposed to accomplish in the construction of this engine were—to produce a more perfect vacuum with the same quantity of injection water, to render the condenser vacuum more uniform, and, above all, to prevent the loss of power arising from the vacuum in the cylinder being less perfect than the vacuum in the condenser. It has been ascertained, by numerous observations on different steam-engines, that the difference between the vacuum in the cylinder and that in the condenser is, on an average, equal to three pounds and a half on the square inch. The cause of this greater pressure of the steam in the cylinder, though in communication with the condenser, is to be attributed principally to the insufficiency of the apertures of the eduction passages, which will not permit the steam to escape with sufficient rapidity to preserve the equilibrium. The motion of the piston, which tends to compress the used steam more and more as it advances, also materially adds to the difficulty of maintaining the exhaustion in the cylinder equal to that in the condenser; for, allowing the condenser to obtain a perfect vacuum, the steam in the cylinder would require time to escape; and even were the piston to remain stationary, the elasticity of the cylinder steam would not become reduced to that in the condenser till after the lapse of some seconds; as time is required for each additional portion of steam to be condensed when it enters the condenser, and the steam in the cylinder is constantly expanding. The advancing piston, by compressing the steam in the cylinder, increases its resisting elasticity, and, consequently, adds to the difficulty of escaping into the condenser fast enough to preserve the equilibrium. It is observed by Mr. Pilbrow, that time being an essential element to perfect condensation, even were the steam to enter the condenser more rapidly than at present, not much advantage would be gained.

The plan by which Mr. Pilbrow proposes to overcome these obstacles to the efficiency of condensing steam-engines is this:—Instead of having a spacious chamber for a condenser, he admits the used steam into another cylinder, with a solid piston movable in it, similar in size to the working steam-cylinder. At the top and bottom of the condensing-cylinder jets of water may be introduced to facilitate the condensation. Let us suppose the piston of the condensing-cylinder to be at the top, a vacuum having been formed underneath, and the piston of the steam-cylinder to be at the bottom, having just completed its down stroke. In this position of the engine the eduction valve at the top will be opened to admit the used steam above the steam-piston to the top of the piston in the condensing-cylinder. It is evident that the condensing-cylinder piston, as there is supposed to be a vacuum under it, will be forced downwards by the entrance of the used steam with as much force as if steam of that density were admitted from the boiler. Supposing, therefore, that the steam passed through the eduction passages freely, the effect of such an arrangement would be, that the steam issuing from the boiler would act against the steam piston with the same advantage as if there were a vacuum on the other side. It might, indeed, be supposed, on a first consideration, that the advantage gained would be greater, as the used steam is made to work the condenser-piston. No advantage can, however, be gained in that manner, because the resistance which the uncondensed steam offers to the action of the steam-piston counterbalances the effect of its action on the condenser-piston. The used steam in this case serves merely as a medium for continuing the action on the steam-piston.

Assuming that the action of the engine could be thus continued—that the vacuum under the condenser-piston was perfect at the beginning of every stroke, and that the intermediate used steam acted as a rod of communication for transmitting motion—the objects proposed by Mr. Pilbrow would be accomplished; the vacuum would be perfect, and the action upon it would be direct. But in order to provide for the performance of the next stroke, the used steam, which commences its work by forcing down the piston against the vacuum underneath, must be itself condensed to form a vacuum for the return stroke. As soon, therefore, as the injection water is admitted, the used steam in the cylinder is condensed, and its action on the condenser piston ceases. From the moment the condensation in the cylinder begins, the principal alleged advantage of this engine ends. The condensation is conducted under circumstances even more disadvantageous than in the common condenser, because, as the space is more limited, so large a volume of steam cannot be exposed to the action of the condensing media. It appears to us, also, that the difference between the vacuum in the condensing-cylinder and in the steam-cylinder must be greatly increased by thus effecting the condensation in more limited space. For suppose the condensation to commence when the cylinder has made half a stroke, and that the effect of throwing in the jet of cold water were the instantaneous condensation of the steam in the condensing-cylinder, in that case there would be a vacuum in one cylinder while the used steam in the other would retain its original elasticity until the equilibrium were restored by rushing through the eduction valve. Inasmuch, therefore, as a larger proportion of the used steam would always remain in the steam-cylinder, there would be a greater corresponding resistance to the motion of the piston whenever the counterbalancing action on the second piston was removed by condensation.

It is stated by the inventor, as one advantage of his engine, that the vacuum is more perfect with the same proportion of injection water, because the waste water and liberated air and gas are pumped out at each stroke of the piston of the condensing-cylinder. To produce this effect, however, it is evident that there must be a great power required to force out the water against the pressure of the atmosphere acting on the large area of the piston; and that, too, at the end of the stroke, when the power of the steam is the weakest. It may be observed, that one of the objections urged against the present condensing-engines is, that the vacuum is least perfect at the commencement of the stroke, and that it does not attain its maximum until the stroke is completed. In the condensing-cylinder engine this condition is reversed, and, as we conceive, greatly to its disadvantage. The greater force of the steam at the commencement of the stroke, when an engine is working expansively, is more than adequate compensation for the imperfection of the vacuum; whereas, if the resistance to be overcome increases as the steam expands and its force diminishes, the engine will be liable to stop.

The calculations of the advantages to be derived from the condensing-cylinder engine are entirely extravagant. In a description of the engine, by Mr. Humeau, it is stated that the engine will effect a saving of two-thirds in steam, and consequently in fuel. There is a good deal of mystification in the mode of stating how this important advantage is to be gained by Mr. Pilbrow's engine; but the amount of it is stated clearly and explicitly enough. By employing the condensing-cylinder engine in steam navigation, Mr. Humeau observes—"A passage in America, which now requires 500 tons of coal, will, by this engine, require but little more than 200 tons."

It is assumed by Mr. Humeau, that the present engines have to work against a pressure of 15 lbs. in the square inch, from "an imperfect cylinder exhaustion," as compared with the condenser; and that in the condensing-cylinder engine this loss is saved, "by having the full effect of the vacuum upon the piston from the beginning to the end of the stroke." If the view we have taken be correct, the condensing-cylinder engine is even more liable to inequality from "imperfect cylinder exhaustion" than the common condenser, so soon, at least, as the condensation begins. The only question with us is, whether the gain of the pressure of the used steam on the condensing-cylinder piston, during the time it is exerted, be sufficient to counterbalance the disadvantage attending the circumstances of the succeeding condensation. A saving of one pound the square inch is also calculated to be gained, by obtaining a better vacuum. This appears, however, not to be founded on practical results, for no point is adduced in actual working. There are some minor sources of error in Mr. Humeau's calculations, which, if corrected, would reduce the estimated efficiency of the condensing-cylinder engine. We need not, however, pursue the author of the treatise into the minute portions of his estimate. He places the chief value of the engine on its power to overcome the resistance in the piston arising from "an imperfect cylinder exhaustion," compared with the exhaustion of the condenser. If the condensing-cylinder engine do not effect this, its chief claim as an improvement on the present condensing-engines falls to the ground; and, from the consideration we have given the subject, it appears that this advantage is, for the most part, if not entirely, chimerical.

**RAILWAYS IN RUSSIA.**—A joint-stock company in England has obtained the Emperor's permission to make an iron railway from Moscow to St. Petersburg, and will begin its operations perhaps this autumn, but certainly in the spring. Five years are allowed to complete the whole line, which will be thirty-three miles longer than the common road between Moscow and St. Petersburg, because it is to pass through to Rybinsk, in the government of Yaroslavl, on the right bank of the Volga, because that town carries on the most extensive corn trade with St. Petersburg. All the vessels laden with the produce of the south, which come up the Volga to the north, must stop here.

The whole extent of the railway between Demidoff and Elberfeld was opened on the 1st instant.

## ON THE PERCUSSIVE ACTION OF STEAM AND OTHER AERIFORM FLUIDS.

BY JOSHUA PARKES, M.E.C.E.

(Read at the Institution of Civil Engineers.)

In a previous communication, "On the Action of Steam in Cornish Single Pumping Engines," Mr. Parkes, after a careful analysis of the ascertained facts of the quantity of water which, in the shape of steam, passed through the cylinders of the engines, arrived at the conclusion that the steam's elastic force was insufficient to overcome the resistance opposed to it. On obtaining this remarkable result, he was induced to examine the circumstances under which the steam is applied, and was convinced that, from the instantaneous and free communication made between the boiler and the cylinder of these engines, an action, distinct in character from the simple pressure of the steam, must be transmitted to the piston. And, in order to convey some precise idea of the peculiar nature of this action, he adopted the term "percussive action," to distinguish such action from that due to the simple elastic force of the steam. Various phenomena, connected with the working of the engine, were adduced in confirmation of the views then advanced. In the present communication, Mr. Parkes has resumed the subject, and brought forward numerous facts derived from experiment and observation, on steam and elastic fluids generally, in further corroboration of his opinions respecting the percussive action of steam in engines.

The effect of the percussive action of steam may be clearly traced on the indicator diagrams (a series of which, forty-one in number, taken from four engines, with different indicators, the pressure of the steam varying from 6.5 to 34.7 lbs. per square inch, accompanied the communication), and it will be seen that, in every instance, the piston was driven to a greater height than that due to the simple elastic force of the steam; in many instances a greater pressure was marked than existed in the boiler. The difference in the action, according as the steam is admitted suddenly, or gradually, into the cylinder of the engine, may be also distinctly traced on the diagrams.

The same effects were observed on the sudden admission of steam upon the surface of mercury in the column of a mercurial column. In these experiments, the steam being let on gradually, the gauge marked a pressure of 40 lbs. per square inch, which was the true pressure in the boiler; but, being admitted suddenly, the gauge exhibited a pressure of at least 60 lbs., and the same results were repeatedly obtained.

The steam generator of Mr. Perkins will afford a good illustration of the effect of the steam's instantaneous action. The pressure in this apparatus is denoted by an instrument having an index moving round a dial-plate. Steam of twenty-six atmospheres being suddenly admitted, the index was observed, during repeated trials, to register a pressure as high as thirty-six atmospheres, and then to recede until it remained stationary at twenty-six atmospheres, which was the pressure in the generator. The results of these various experiments are arranged in two tables, exhibiting an analysis of the elements into which they may be resolved.

The author then proceeds to point out the different circumstances of the pumping and crank engines, in respect of their realising, beneficially, the steam's percussive action. In the latter, this instantaneous action takes place (as the indicator diagrams show) when the connecting-rod and crank are in one vertical line, so that it is inefficiently expended; the centre, by the agency of the fly-wheel, not having been passed. In the former, the load and frictional resistance alone oppose the descent of the piston; the piston is free to move, and the steam's action is wholly efficient in impelling it; and, whatever the amount of the percussive action, it will be accounted for in the effect.

A remarkable confirmation of the conclusions arrived at, and the views advanced by Mr. Parkes in his previous communication, had been furnished by Mr. W. West. The cylinder cover of the Poway Console engine, eighty inches in diameter, and weighing four tons, springs upwards at the centre of an inch, on the sudden admission of steam, which, in the boiler, has a pressure of 49.7 lbs.; and, if of an inch, the steam in the boiler being 61.7 lbs.; but no change of form, or springing, occurs when the steam is let on gradually, and fills the cylinder at the same pressure as that in the boiler. The author adduces many other facts in illustration and confirmation of his views; as, the oscillation of the mercury in steam and vacuum gauges; the audible sounds produced in a steam-pipe on suddenly checking the motion of the elastic fluid by shutting a cock; the curious phenomena connected with the impact of elastic fluids on each other, particularly those observed by Mr. Greener on firing gunpowder in long open-ended barrels; and, in conclusion, suggests whether these remarkable facts may not serve to assist in elucidating some of the very difficult and apparently inexplicable phenomena, connected with the explosion of steam-boilers.

Mr. Lowe had recently made some experiments, which, in his opinion, confirmed Mr. Parkes's views on this interesting subject.

A pressure gauge, attached to a line of gas pipes, showed, when the communication was slowly opened, a pressure of four inches column of water; but it invariably exhibited a maximum of oscillation of full six inches column on the sudden opening of the small stop-cock between the pipe and the gauge. In a line of pipes, full of gas, the whole volume of gas received an impulse on suddenly opening the valve at one end, and the passage of the undulating wave was indicated by the sudden and successive depression of the water in the gauges along the whole line.

Mr. Humeau could not agree with Mr. Parkes as to the effect due to what he termed the "percussive action of steam;" he believed that the superior economy of the Cornish engines, as far as related to the action of steam in the cylinders, would be found to be due to the amount of the expansion of the steam, which depended, not only upon the opening and closing of the steam valve, but also upon the greater or less area of the aperture of the throttle valve. It was evident, that, on closing the steam valve, the space between it and the throttle valve would be filled with steam of a density nearly, or quite, equal to that in the boiler; therefore, on the first admission of the steam into the cylinder, it might be presumed to act upon the piston with that pressure; considering, likewise, that a short interval of time necessarily occurs for setting in motion the beam, with the heavy pump-rod appended to it; but immediately the piston starts, expansion takes place, as the throttle valve prevents the steam from following the piston freely, so that a greater degree of expansion must take place when the steam is at a higher density; for the throttle valve being then more closed, offers a greater resistance to the steam following the piston. The indicator diagram of the East Crinoid engine showed this effect in a certain extent, although neither in that nor in the diagram of the Huai Tawan engine was there nearly the same degree of pressure exhibited in the cylinder at the commencement of the stroke, as in the boiler; but it was evident that those diagrams could not be relied upon, as they did not account for the whole duty done by the engines, either on the percussive or the expansive principle.

Assuming a bushel of coal to weigh 34 lbs., as generally reckoned in Cornwall, and that 1 lb. of coal would evaporate 104 lbs. of water, it could readily be shown, that the quantity of water converted into steam by one bushel of coal, would, when expanded in a cylinder, during  $\frac{1}{3}$  of the stroke, lift upwards of 287,000,000 lbs. one foot high in one minute; which was a much greater duty than was realised by any Cornish engine.

Mr. Seaward allowed that Mr. Parkes had clearly shown that a certain amount of effect was due to the sudden impact of the steam upon the piston of a pumping-engine. Whether the term "percussive," as applied to this action, were the proper one, he would not then examine; but the effects shown to have been produced, and the phenomena attendant upon the exhibition, were so remarkable, that he conceived the subject to merit the most deliberate investigation of engineers as well as philosophers. He had previously objected to the theory, on the ground that the effect could only be in the ratio of the weight of the steam multiplied into its velocity; but he believed the subject must be examined in a different manner; and although the principle must always have existed, it was only in consequence of modifications in the application of steam, that the effects had been so fully developed.

Mr. Parkes mentioned, that since his paper had been written, he had found an experiment which was strictly analogous to his proposition. It was related by Mr. Robins, who was so justly celebrated as a mathematician and philosopher, and first discovered that the gas evolved from gunpowder was a permanently elastic fluid. "When gunpowder is fired in an exhausted receiver, the mercurial gauge instantly descends upon the explosion, and as suddenly ascends again. After a few vibrations, some of which, except the first, are of very great extent; it fixes at a point which indicates the density of the inclosed gas." He considered this result as corroborating those obtained by himself, as well as justifying the comparison he had drawn between the instantaneous action of gunpowder gas and steam. Mr. Robins's words positively described the steam's action, on board on the indicator diagram exhibited. The springing of the cylinder cover referred to, and in the manner stated, must, he thought, satisfy every eye, that the steam's instantaneous action far exceeded in effect that of its simple elastic force, which was proved to have been unequal to overcome any change in the parallelism of the cover.

As regarded Mr. Humeau's investigation of the power of the steam in the Huai Tawan engine, it was correct that the initial steam was in a state of expansion during  $\frac{1}{3}$  of the stroke; but not all the steam, for it had not all entered the cylinder until the piston had travelled through nearly  $\frac{1}{3}$  of the stroke. His calculations were, therefore, hypothetical, and not in accordance with the facts of Mr. Humeau's experiment.

**THE NEW'S RUTATION.**—The *Monthly Gazette* publishes a note from Professor Greenough, announcing that he has ascertained the exact time in which the sun makes its rotation upon its own axis. He finds that the sidereal rotation is made in 25 days 14 hours 55 min. 3 sec., and its synodical rotation in 27 days 13 hours 17 min. 19 sec.

## OBSERVATIONS ON MINERAL DEPOSITS AND THE VARIOUS THEORIES RELATING TO THEIR FORMATION.

Metals being objects of primary utility to mankind, great importance has, in all ages, been attached to the possession of their receptacles; and it is to the study of their formation, and of the substances combined with them, that geology owes its rise. On the other hand, as metals are rarely found in a state of purity, it is necessary, in order to render them applicable to human purposes, to examine and separate these extraneous bodies by means of chemistry. Geology, in reference to its mechanical part, confining itself to facts and deductions thence formed, has already attained a considerable degree of advancement—but it is not so with its chemical division. The phenomena of the reaction of masses of matter in vast perturbations of the earth, are of an order so sublime, and the influence of time and the scale of action so immense, as to exceed all our ideas on this subject; and what renders these investigations more perplexing, is the difficulty of making observations beneath the surface—Nature seeming to invite the notice of the geologist to the latter, whilst she repels him from the former he attempts to plunge below it; and we may say with Valmont de Bomarais—"The study of the mysteries of Nature in the bowels of the earth is, doubtless, the boldest, but, at the same time, the most delightful and sublime. The materials are vast—the operations on an immense scale, filling the mind with surprise and admiration; but the hand of the workman is invisible."

The opinions entertained upon the structure of the globe itself, appear to oscillate between the aqueous and igneous theories; but those which have been conceived respecting the constitution of metallic veins are much more various, since the phenomena to be observed increase in number the further we enter into detail, and the hypotheses put forth are derived from the preconceived notions of the origin of the globe itself. Thus, for those who admit the igneous mode, it is as easy to conceive metallic veins arising from fusion as from evaporation or liquidity; and if, on the other hand, the theorist entertain the notion of aqueous formation, he will ascribe metallic productions either to the action of water on the surface or in the interior of the earth, either mechanically, by crystallisation, or chemical precipitation. According to others, the waters penetrating through the rocks become impregnated with particular mineral substances, which they then deposit in the veins by infiltration. If we add to these the electro-chemical effects arising from the contact of numerous heterogeneous rocks, we may form an idea of the various sources from which the human mind has sought to derive assistance in support of its theories. Without noticing the opinions grounded on the supposed science of alchemy, and which have not wanted advocates in modern times, as, for instance, the celebrated Trébra, in 1785, we may mention those of Hoffman and Zimmermann, published in 1725 and 1741. According to these authors, a matrix was required in the bosom of the rocks, which, after certain processes, became fit for the production of metals. These matrices, say their inventors, could not occupy every locality nor arise indiscriminately, otherwise whole mountains would be spontaneously transformed into minerals, but only in certain directions, in substances foreign to the surrounding masses, and consisting ordinarily of decomposed and friable rocks, approaching the state of earths, as a preliminary ore to their transformation into metals. This theory seems to bear some relation to the argillaceous veins which commonly accompany productive ones. Patrin supposed metallic veins to be a sort of carious production in the strata of the earth, and that the most considerable veins began to be formed in a gradual manner, proceeding as the cariosity of animal bones and the ligneous texture of trees.

An hypothesis equally singular was broached by Lehmann, in 1735, and is the more deserving of mention here, as even, at the present period, it is not without importance in the opinion of some persons. This theorist considers metallic veins as branches or sprouts from an enormous trunk, at a depth of the globe to which we have not yet reached; and improbable as is this opinion, it is still received by a certain class, notwithstanding the experience and positive facts which contradict it; but it need not surprise us that defenders of these visionary speculations are still to be found, when we consider that there are still individuals to be met with who place a superstitious confidence in the virtues of the divining-rod.—*Traité Géogn.*

## ON THE CAUSE OF INCREASED DESTRUCTIBILITY OF MODERN COPPER SHEATHING.

BY J. PRIDEAUX, ESQ., F.R.S.

(From the proceedings of the British Association.)

Comparative analyses of five select samples of sheathing, compared with two others by Sir H. Davy and Mr. R. Phillips, three of them having worn remarkably well, and three others having been rapidly destroyed, did not elucidate the cause; some of the purest having suffered the most, whilst others the nature nor quantities of the alloying metals bore any proportion to the durability of the others; the worst of all and the best but one being nearer alike in composition than any of the rest. The analyses were shown in a table. Neither did the physical properties, as hardness, tenacity, grain in fracture, nor colour, present more consistent relations to the wear. The specific gravity only coincided with the durability, the two most durable being also the heaviest. (The samples were shown.) Hence he had recommended the rolling of the sheathing to be finished cold, both to give it more pressure and to harden it against friction. Not finding the causes of waste in the chemical or physical qualities of the metal, samples of each, of equal surface, were kept immersed, under parallel conditions, in sea water sharpened with sal ammoniac, and the loss of weight of each ascertained. This did not all coincide with the waste at sea; the most durable having suffered the most, and the least loss having occurred to one of those which had been most rapidly destroyed. Hence the cause of waste seemed to be rather in external circumstances than in the properties of the coppers. Of these external causes, the sheathing usually wasted most about the water-line, and down by the bows and the rudder, where it suffered the wash and froth—plainly from friction and oxidation. The bottom was less injured in deep waters, but wasted when liable to ground upon black mud, by the sulphureous and other corrosive exhalations. The *Edgystone* tender appeared to suffer in this way. The nails appeared to exercise an electro-chemical influence, in proportion to the great metallic surface they presented, both to the copper and the salt water. This influence had been very apparent on the *June*, a schooner of Mr. Moore's, on which the copper was quite sound round some of the nails, though the rest of the sheet was polished; whilst round others the copper was much worse than in other parts of the same sheet. All the nails he had tried were electro-negative to the copper; and on immersing equal copper slips from the same sheet, in the same sea-water, in contact with different nails, they had been differently acted on; most of them having lost more than a slip to which no nail was affixed; but one having lost less, that nail having exercised a protective influence, whilst all the others had been destructive. He recommended that nails should always be made protective, so far as was compatible with their own durability, as the most convenient mode of chemical protection. The increased velocity and activity of merchant ships must subject them to increased wear, and this activity will expose them more to stress of weather, still increasing the waste by friction. It is known that the copper suffers most in hot climates, where the vessels are also most subject to electrical discharges—heat and electricity being both exponents of chemical action. The *June*, which had undergone many heavy thunder-storms on the African coast, had lost 16 per cent. of her copper in two years and a half.

The waters of different seas might contain different proportions of corrosive ingredients. The *Flower* and *June* had their copper about the water-line, marked with uniform punctures, as if by organic action. Samples had been obtained from different seas, and tried by the immersion of equal slips of the same copper. That from the Gulf Stream had wasted the copper more than the others; but after allowing for all these external causes, the defect seems too often to be in the copper itself. But it seemed to little purpose to proceed with comparative analyses, until the different characters of the coppers have been proved, by their wear under similar circumstances. For this purpose, Mr. Prideaux recommended that vessels should be sheathed with different coppers on their two sides, all sheathed with the same nails. Thus the shipwright would learn whose copper he could best confide in, whilst supplying the chemist with materials for ascertaining the causes of the difference in quality. Meanwhile he recommended the nails to be made slightly electro-positive to the copper, as a chemical preservative; and coal tar laid on fast upon the copper also wasted, as a mechanical protection against friction. The *Edgystone* tender had her water-line, &c., fully protected by a mere coat of oil; and Mr. Moore's *June* had most strikingly shown the protective quality of coal tar by the perfect preservation of the lines over which coal tar had trickled, whilst the rest of the sheet was quite destroyed.

**RAILWAYS IN THE BRAZILS.**—Private accounts from Rio de Janeiro state, that the projected project for the establishment of a railway in the Brazil has been favourably reported on by the Committee of Agriculture, Commerce, and Industry, and that there is every prospect of the Government taking the concern under its protection. The whole of the money required to complete it is expected to be raised in the Brazil. Among the privileges granted to the company, is that of importing their machinery, &c., free of import for a period of five years.



## MINING CORRESPONDENCE.

## ENGLISH MINES.

## HOLMURGH MINING COMPANY.

Sept. 13.—I beg leave to inform you that the lode in the 110 fathom level west continues about seven inches wide, and yielding some good work for copper ore. The lode in the 100 fathom level, west of Wall's shaft, is one foot wide, and worth about 18s. per fathom. In the winze, sinking below this level, the lode is sixteen inches wide, and worth 14s. per fathom. The eastern and western stopes, in the back of this level, are much as last reported, the lode in the former being eighteen inches wide, and worth 26s. per fathom; the lode in the latter is sixteen inches wide, and worth about 26s. per fathom. The lode in the ninety fathom level west is sixteen inches wide, and worth 26s. per fathom. The lode in the stopes, in the back of this level, is one foot wide, and worth 14s. per fathom. The cross-cut to the south lode, at this level, is still in moderate ground, and several small branches producing ore have lately been met with. The eighty fathom level, east of Wall's shaft, and the rise in the back, against Hitchin's shaft, are without alteration. The lode in the winze, sinking below this level, is eighteen inches wide, and worth about 30s. per fathom. The lode in the stopes, in the back of this level, is fifteen inches wide, and worth 26s. per fathom. The lode in the seventy fathom level stopes is from two to two and a half feet wide, and worth 26s. per fathom. In the seventy fathom level east, at Flap Jack, no lode taken down during the past week. The north branch, in the sixty-two fathom level west, is three inches wide, and at present unproductive. The rise in the back of this level, against Hitchin's shaft, and the rise in the back of ditto, against Hray's shaft, are still making favourable progress. The tribute pitches are without any material alteration. F. PHILLIPS.

## TRETOIL MINING COMPANY.

Sept. 13.—The lode in the engine-shaft is eighteen inches wide, producing good stones of ore. The lode in the fifty fathom level, east of engine-shaft, is at present small and unproductive. The lode in the fifty fathom level, west of engine-shaft, is fifteen inches wide, producing some ore. The lode in the rise, in the back of the forty fathom level, east of engine-shaft, is fifteen inches wide—very good tribute ground. The lode in the forty fathom level, west of engine-shaft, is eighteen inches wide—tribute ground. The lode in the thirty fathom level, east of Williams's shaft, is eighteen inches wide—very good tribute ground. The lode in the rise, in the back of this level, is sixteen inches wide—very good tribute ground. The lode in the twenty fathom level, west of John's shaft, on the Slide Park lode, is nine inches wide, producing a small quantity of ore. The lode in the rise, on John's lode, in the back of this level, is six inches wide—tribute ground. Tregellas's lode, at the same level, is eighteen inches wide—tribute ground; this end has improved since last reported. The lode in the twenty fathom level, east of Williams's shaft, is six inches wide—unproductive. The lode in the ten fathom level, east of Williams's shaft, on the south part, is eight inches wide—good tribute ground. We have at present twenty-four pitches working at the following tributes:—Four at 13s. 4d., two at 12s., one at 11s. 6d., three at 9s., four at 9s., one at 7s., four at 6s. 8d., three at 3s., one at 4s. 3d., and one at 3s. 6d. We have sampled this day 217 tons of ore. H. WILLIAMS. J. MORCOM.

## UNITED HILLS MINING COMPANY.

Sept. 11.—Twenty Fathom Level.—The lode in this end is two feet wide, producing a small quantity of ore. Thirty Fathom Level.—In driving this end east, the lode is five feet wide, two and a half feet good ore. Thirty-six Fathom Level.—No lode taken down in either of these winzes since last reported. Forty Fathom Level.—The lode in this end is two feet wide, six inches on the north part; in the winze lode eighteen inches wide, good ore. Forty-six Fathom Level.—In driving east of Turton's shaft the lode is three feet wide, with stones of ore; west of ditto, the lode is three feet six inches wide, and coarse in quality. James's Shaft.—Sinking north of the lode. Diagonal Shaft.—No lode broken down since last week. Fifty Fathom Level, east of Williams's Shaft.—The lode is four feet wide, one foot good ore on the north part; west of said shaft the lode is three and a half feet wide, and ore throughout. Sixty Fathom Level, east of Williams's Shaft.—The lode is three feet wide, one foot ore; west of said shaft the lode is four feet wide, and producing very little ore. Williams's Shaft.—No lode broken in this shaft since survey day. N.B.—No particular alteration in the pitches since the same period. W. RICHARDS. S. H. PEARCE.

## TAMAR SILVER-LEAD MINING COMPANY.

Sept. 13.—In the 125 fathom level the lode is two and a half feet wide, at present poor. In the 115 fathom level the lode is two feet wide, producing saving work, but not rich. In the 100 fathom level the lode is three feet six inches wide, producing some good work, still a promising level. In the ninety-five fathom level the lode is one foot wide, carrying a small branch of ore. In the eighty-five fathom level the lode is large, being from three to four feet wide, and producing very good work. In the seventy-five fathom level the lode is nine inches wide, still carrying a branch of ore. In the sixty-five fathom level the lode is one foot wide, producing a small quantity of ore. In the fifty-five fathom level the lode is nearly eighteen inches wide, yielding some very promising work. The tributers are working well, and their prospects are favourable. We sampled on 24 instant two parcels of silver-lead ore, computed 644 tons, viz.:—No. 1, 52 tons; No. 2, 124 tons; the latter is from the steam stamps. J. SPRAGUE.

## REDMOND CONSOLIDATED MINING COMPANY.

Sept. 13.—At the sixty fathom level, going east, the ground is not quite so favourable for driving as when last reported. At the fifty fathom level cross-cut south the ground is still moderate; we have driven from the shaft about 23 fms. 3 ft. Going north, at the forty fathom level, on the lead lode, the ground is favourable for driving; lode one foot wide, saving work. In the rise, at the back of this level, the lode is about eighteen inches big—ready. Driving east, on the middle copper lode, at the thirty fathom level, the lode is from eighteen to twenty inches wide, ore throughout. In the end, driving south on the lead lode, at this level, the lode is six inches wide, saving work. The lode at Hurdwood, going east, is two feet six inches wide, composed of capel, spar, jack, and a large portion of mudstone. We have not yet seen this lode in the western part. We perceive very little variation in tribute pitches. F. R. ROWE.

## TREGOLLAN MINING COMPANY.

Sept. 13.—I beg to inform you that the lode in the forty fathom level east is six feet wide, producing a small quantity of ore, and the ground favourable for driving; we expect to get this level home under the run of ore ground in the thirty fathom level in the course of another month. The lode in the thirty-east end continues to hold good; the ore part of it is at present one and a half feet wide, producing grey, black, and yellow ore—worth from 12s. to 14s. per fathom. The lode in the winze, below ditto, is not so good as stated to you in my last, it being at present disordered with a hard vein of ground, but we believe it will again shortly improve. The lode at the ten fathom level, in driving on the north part of it, to the west of Baker's shaft, is looking favourable. We have suspended the sinking of the winze below the adit level for want of air, and intend boring it in course of working to a tribute pitch from the back of the ten fathom level. Our tribute pitches (right in number) on the whole are looking well, and we hope on Friday next to set two new ones in the back of the thirty fathom level. In consequence of the ore continuing to hold up in the eastern pitches above the back of the ten fathom level, we have thought it advisable to drive the adit level, we calculate to be about ten fathoms behind the run of ore. J. NINNES.

## GREAT WHEAL CHARLOTTE MINING COMPANY.

Sept. 15.—In sending you the report of this mine, I beg to say the lode in the eighty-two fathom level west from shaft is five feet wide, yielding about 5s. worth of ore per fathom; the same level east is still poor. The seventy-two fathom level west from shaft is turning out about 6s. worth per fathom; the lode in this end is five feet wide. The stopes, in the back of this level west, is producing about six tons per fathom, worth 4s. 10s. per ton. The lode in the stopes, back of this level east from shaft, is four feet wide, worth 20s. per fathom. The winze, sinking under this level west from shaft, is turning out 6s. worth of ore per fathom. The stopes, in the bottom of the sixty-two fathom level, is much the same as last reported, worth 20s. per fathom. The lode in the stopes, further west, is six feet wide, worth about 20s. per fathom. The sixty-two fathom level, driving east on the north branch, is worth about 6s. per fathom. We sampled sixteen tons yesterday. S. TREVITHAN.

## TREGOLLAN CONSOLIDATED MINING COMPANY.

Sept. 11.—The seventy, east of Charlotte, is greatly improved; the lode is two feet wide, and worth 6s. or 6s. per fathom. The seventy west is not yet clear from the disordered ground. At the sixty west we have been putting in a piece of back, and are now driving south through the lode to feed the south winze; the lode is six to eight feet wide, and worth 20s. per fathom in driving. The fifty west is also looking well; the lode there is four feet wide, and worth at least 20s. per fathom. This level east is also improved since survey day. In the old pump shaft the lode is three feet wide, one of which is spangled with ore, and may be worth about 50s. per fathom. At Good Fortune there is no alteration. W. SINDOCK.

## WEST WHEAL JEWEL MINING ASSOCIATION.

Sept. 13.—The seventy cross-cut, south of Buckingham's engine-shaft, ground very favourable for driving. The fifty cross-cut, on the south branch, the lode in the end is worth 10s. per fathom. The fifty cross-cut, on Wheel Jewel lode, the lode is eighteen inches wide, and worth 6s. per fathom. The fifty cross-cut, on this lode, has not been taken down since our last. The fifty cross-cut, on the north lode, is worth 5s. per fathom. The lode, in rising in the back of the adit, on Wheel Jewel lode, is worth 10s. per fathom; and in the winze sinking over this level the lode is worth 4s. per fathom. No alteration in any other part of the mine. STEPHEN LEAR.

## FOREIGN MINES.

## COLOMBIAN MINING ASSOCIATION.

## From Mr. Degenhardt.

SUPIA DISTRICT.—Marmato, April 23.—March returns, including the gold obtained gratis from the tributers, and that purchased, amounts, before deducting the quinto, to 33 lbs. 10 oz. 14 dwts. fine, and is obtained as follows:—  
From the Mine ..... 39 6 0  
Gold dust purchased ..... 7 11 14  
Tributers ..... 6 5 0—14 4 14  
33 10 34

The Mine.—This, I am most happy to state, continues promising, and increases in productivity.

San Nicolas End.—West of the heave a very fine lode continues in the end, two feet clean ore, and it appears as if the Main Salto, so far west under the hill, is becoming once more settled.

Main North Salto.—The lode in the west end is now three feet wide, and has cut the long-expected bench extremely rich for gold. The communication with the rise from the José cross-cut north on this lode, and the old workings above, has been most satisfactorily completed last night, and every thing is in course for commencing stamping on this lode, where all the workings have now an excellent ventilation.

San José North-Western Branch.—A communication with the end driven on this branch and the San José level has been effected last night by means of a cross-cut north, 3 fms. 3 ft. long. A good ventilation is likewise established here, and stamping will commence to-morrow on this branch, which is also very rich in gold.

Mine Officer's Report for March, containing the detailed ore account for the first quarter, cannot be forwarded by this opportunity for want of time.

Reduction Department.—Mr. Treherne's report can neither be forwarded at present, as the rather complicated accounts and assays for the March returns, and alcohol, are not yet finished.

Isometrical Plans for the old-established Cornish dressing-floor at Marmato, and of the new floor with the ancient native portable dressing apparatus, "molinos," on an improved plan, and drawn by Mr. L. Degenhardt, I have the pleasure of forwarding by this opportunity, particularly as they will give a further explanation, in addition to the excellent description of the native "molinos" in Mr. Treherne's report for February. These isometrical plans are faithful copies of the original, which will be forwarded by next post to the board, accompanied by several sections of the Canadado, Gamburn, and other lodes, which have been finished with great precision by Mr. W. Degenhardt, and are copied by Mr. Louis Degenhardt.

## MINING NOTICES.

[Under this head we purpose collecting such paragraphs as may appear in the provincial and other Journals, having reference to discoveries and improvements in mining operations at home and abroad. It is hardly necessary to observe, that we must not be considered to admit the correctness of the information conveyed, which, in too many instances, requires cautious investigation—the sanguine expectations of parties in some instances, and the want of honesty in others, throwing a degree of responsibility on a Journal in giving publicity to reports, which we do not intend taking upon ourselves.]

LEAD MINES.—Great interest has been excited amongst the inhabitants of Eram and its vicinity, by the spirited undertaking of James Surby and Co., to bring forward a shaft or level to relieve the lead mines in Eram Edge of water. This tough commerce at the country seat of Lord Chief Justice Denman, Stoney Middleton, and was brought forward about midway to the mines about forty years ago, when, in consequence of the expense and other impediments, it was stopped; and it is only within this last month that this very desirable work has been resumed. Should this and other projects for clearing the water from the mines be carried fully into execution, and of the efficacy of which sanguine hopes are entertained, the villages of Eram may partake in some degree of the prosperity which their forefathers so profusely enjoyed. The Water-groove Mine, near Eram, the richest mine in the Peak of Derbyshire, and on which a steam-engine has been erected of 300 horse-power, at an enormous expense, has been standing almost the whole of this last winter season. The engine and other works were completed early in the spring of the present year, for commencing the working of the mine. For a short time every thing went on auspiciously, and great quantities of ore were discovered, which not only held out assurances of covering the outlay, but also of realising profit. The excessive and unusual quantity of rain which has fallen this summer has filled the works, and defied success, at intervals, the power of the engine. Hopes are, however, entertained that, even in ordinary seasons, all will go well; and that the expectations of the highly enterprising proprietors will be realised.—*Sheffield Iris*.

TIN ORE IN AMERICA.—We are indebted for the following interesting communication to an esteemed correspondent:—In Dr. Jackson's first Geological Report of New Hampshire, it is stated that he had discovered in the hands of Mr. Eastman, of that State, a large mass of tin ore, which was blasted out while obtaining specimens of the mineral pyrites which occur on that estate. The ore consists of the massive crystallised and granular oxide of tin, and is associated with the arsenical iron, but is not mixed with it. Having reduced a few of the crystals to metallic tin, whilst on the spot, the Doctor subsequently made a minute chemical analysis, and several assays of the ore in mass, and obtained, after pulverising and washing, from 30 to 50 per cent. of tin. "By assay in a brazen crucible (he continues) I obtained from fifty-seven grains of the washed and roasted ore twenty-two grains of pure metallic tin, which would be equal to 37 per cent. of tin in the ore. By washing the pulverised ore, I found that on an average 53 per cent. remained, which was composed of fragments and grains of oxide of tin." Mr. J. E. Teschemacher, of Boston, who is very familiar with all the Cornish varieties, and who has made a drawing of the form of most of the crystals in the specimens from New Hampshire, says, "The grains are not sufficiently free from striae to permit the use of the reflecting goniometer in ascertaining the angles. The measurements are, therefore, those of Phillips, of the accuracy of which, however, I entertain no doubt. The form is that of a mode of the square prism, with a pyramidal summit, arising from modifications of an oblique octahedron with a square base, the primary form of tin oxide, the only remains of this primary. The figure represents a mass of only two crystals; the originals are composed of several united in the same way. This, I believe, the most common of the crystalline forms in the tin deposits of other countries, and appears to me a reason for supposing the deposit in New Hampshire to be large, which I should have doubted had the crystalline forms been those of rare occurrence elsewhere." This must be considered the first proper tin ore which has yet been found in which there was any notable proportion of that metal, and will no doubt stimulate renewed search for other veins of this valuable ore. "Thus far (the report continues) the small tin veins in New Hampshire must be looked upon only as a valuable guide, for it does not contain an adequate quantity of the ore for supplying a furnace. The arsenical ore, on Mr. Eastman's estate, is a vein, varying from one to eight inches in width, and of unknown, but great length. On chemical analysis, it yields 6 per cent. of arsenic, 20 per cent. of iron, and a small proportion of sulphur.—*West Britain*.

## MINE ACCIDENTS.

Bearfoot Iron Works.—W. James unfortunately became entangled between the rolls of the Clay Mill, when he was drawn in, and although the water was immediately turned off, and the mill stopped, yet, before the power could be released, he was a mangled corpse.

East Wheel Croft.—A few days ago, whilst some men were engaged in fixing a new cylinder at this mine, one of them, J. Tredegar, had three fingers cut off by the falling of a part of it; we understand he is doing well.

Great Work Concol.—S. Tuckfield met with his death from an injury to his head, whilst at his labour in this mine on the 20th ult.

Wheat Gray Mine.—Mark Jones, whilst at work at this mine, on the 2d inst., was buried in part under a mass of rubbish, and so injured in the back thereby that he died on the 6th.

Miraculous Escape.—The inhabitants of Dowlais were thrown into the greatest consternation on Saturday work, in consequence of the breaking of the iron pipe that conveyed blast to the furnaces at Iron Iron Works. The shock occasioned by the rupture communicated a slight shock of earthquakes, and those who lived in the immediate neighbourhood were very much alarmed, lest many human lives should be sacrificed, but, providentially, the pipes were scattering, and no one suffered injury.

IMPORTANT INVENTION.—SAFETY GUNPOWDER.—A promise was submitted at a late meeting of the French Academy of Sciences, by which gunpowder can have the property of indestructibility abstracted from it, or imparted to it, at pleasure, so that it may be stored up in any quantity with as much safety as oil or corn. If this process be really what it is represented to us to be, the value of it will be incalculable, for it is well known what fearful accidents come from the explosion of powder-mills and other repositories for this dangerous article.

VALUABLE DISCOVERY IN THE WORKING OF COAL MINES.—There is now working in the Poucherton Colliery a pair of wire cut ropes, the invention of Mr. A. Smith, of London. It consists of an interposition in the position of winding and raising of coals. The strands are woven together with the herringbone webbing. It is as elastic as, and wraps on the block like, a strap; and permits to be one of the finest inventions for working very deep mines ever yet discovered. Great praise is due to Robert Dalglish, Esq., civil engineer, of Orreil-cottages, for introducing it into this extensive mining district.—*Manchester Guardian* of Wednesday.

## ON THE USE OF WASTE GAS IN MANUFACTURING IRON.

At the last sitting of the French Institute, M. Dumas announced the receipt of a letter from M. Goussier, containing some further details on the report of M. Schuchman (see last January) relative to the process adopted by M. Faber Dufour, in the manufacture of Wassy-furnaces, iron run out from the crucibles of the blast-furnaces is put into the puddling-furnaces, and not cold iron, which has been the usual method. By this means the heat necessary for its fusion is economised. The production of the puddling-furnace is about 10,000 kilogrammes of iron weekly. A third blast-furnace is now constructing, and steam-engines are established, in order to proceed on a larger scale by the process of using the waste gas. The first attempts of M. Faber Dufour date from 1837, and were made in puddling of iron. The process which he adopted at Wassy-furnaces had hitherto remained secret, in accordance with the desire of the King of Wurtemberg, who was unwilling that it should so soon be made known in other countries. At the conclusion of this communication, M. Dumas reminded the Academy that he had two months ago received specimens of iron obtained in France, in which the puddling of the iron by means of the gas from blast-furnaces had been adopted at the forges of Tréveray, by the proprietors of those manufactories, Messrs. Audelard and Lisa, and Messrs. Thomas and Laurens, civil engineers, and that, consequently, so important a result in metallurgy has been obtained simultaneously in Germany and in France, without its being possible in the latter country to obtain any information respecting the process adopted at Wassy-furnaces. He added, that the puddling-furnace at Tréveray has continued to act with success from the time of its first being put into action, and immediately yielded fine specimens of iron. In this furnace iron is refined without being puddled, and its production is the same as that of the common puddling stoves. The gas from a single blast-furnace yielding on an average 2500 kilogrammes of iron in every twenty-four hours, is sufficient to keep it in operation—a result which proves that the whole of the rough produce of the ore from the furnace may be manufactured into iron without any additional fuel. This consequence cannot yet be deduced from the manufacture at Wassy-furnaces, where the quantity of iron hitherto manufactured is much inferior to the quantity of iron produced by the two blast-furnaces of this establishment.

M. Dumas thus enumerated the advantages which attend the method of manufacturing iron with gas, as is practised at Tréveray:—

1. Improvement of the quality of the iron, which possesses all the qualities of iron manufactured by charcoal.
2. Considerable diminution in the waste, for it does not altogether require more than 14 per cent. weight of crude iron to make small round iron bars five millimetres in diameter.
3. Total saving of combustible.

No change is experienced in the operation of the blast-furnaces from which the gas has been collected. M. Dumas observed to the Academy, from a passage in a letter from M. d'Audelard, that the idea of employing gas fuel to the same purposes as common combustibles themselves had been suggested for some time by M. Thénard in his public lectures; and that the success of this process, which is likely to be of so much future importance, is attributable principally to the apparatus by which it is now applied. In fact, the idea of applying the gas from blast-furnaces to the manufacture of iron has been adopted in France for many years, particularly since the year 1835, at which time there was a steam-engine of eight-horse power at Echallonge, which worked by the combustion of half the gas from a blast-furnace entering under the boiler, placed at a certain distance from the mouth of the chimney; many unsuccessful attempts were also made. In 1836, consequently before the commencement of the attempts of M. Faber Dufour, a patent of invention was granted to M. Lisa for the manufacture of iron by means of the gas combustible that escapes from blast-furnaces. If this patent has not been practically applied, it is to be attributed to the extreme difficulty of accomplishing a manufacturing process, the success of which is dependant on the correct arrangement of the apparatus, and a variety of other circumstances, which require time, money, and skill to discover.

## MONOPOLY OF QUICKSILVER.

In the Journal of the 28th ult. we inserted some observations, founded on statements made by Mr. Thornton, chairman of the committee of Spanish bondholders, in a communication to the Spanish Minister of Finance, on the injurious effect the monopoly of an important article as that of quicksilver must necessarily have on the mines of South America; these remarks, we are glad to observe, have excited the attention of the Spanish press. It is well known that in all Spanish America, but particularly in Mexico, there are large quantities of ore lying out at the mouths of the mines that cannot be worked up from the excessive price of quicksilver. In the mines of Peru about one pound of quicksilver is lost for every ounce of silver obtained. The annual production of the mines of Almaden is about 26,000 bottles, equal to 19,500 quintals of 100 lbs. For the last five years the exports from London and Liverpool of quicksilver (in bottles) have been as follows:—

## Reports of Quicksilver from London and Liverpool.

	1836.	1837.	1838.	1839.	1840.
Madrid and Calcutta.....	1,030	473	851	2,119	1,234
Bombay.....	301	—	895	—	819
China, Amoy.....	4,538	—	1,590	—	—
United States.....	472	1,530	2,355	1,372	—
Madras, Peru, &c.....	3,000	14,300	54,379	9,000	11,000
Hamburg and Bremen.....	604	400	1,150	592	—
Elisavet and St. Petersburg.....	717	540	1,741	907	—
France and Netherlands.....	1,700	3,300	4,939	1,900	3,000
W. I. Islands and British America.....	2	101	140	9	79
Spain and Portugal.....	432	179	342	341	799
Total exports.....	13,209	19,814	77,900	29,840	16,934

## THE IRON TRADE OF BELGIUM.

The *Journal des Débats*, in remarking on the projected commercial arrangements between France and Belgium, expresses its fears that the competition of Belgian iron and coal would be injurious to those branches in France. The fear is not an unfounded one, but the danger is not perhaps so great as some persons would make it appear. Belgian coal finds its expense of carriage a sufficiently efficacious obstacle not to fear that the amount imported would be increased considerably, as it is hardly probable that the import duty, which is now almost nominal, would be further reduced. As to iron, that is another affair, and extreme precautions must be adopted; but, on the one hand, iron continues to maintain a high price in France, and on the other hand the duties on foreign iron are enormous, we think it would be possible to come to an understanding, which should at the same time respect the interests of the ironmasters, and owners of forests, and give satisfaction to the manufacturers, who complain of the high price of this essential article. We need not exaggerate the importance of the iron trade in Belgium. M. Bérillon, in his work entitled *L'Industrie en Belgique*, valued the production in 1839 at only 90,000 tons of cast-iron, representing a value of 41,000,000 francs. The total annual amount of exports at that period was only 10,000 to 11,000 tons. This quantity, it will be acknowledged, is small, compared with the production of France in 1839, which was 550,000 tons of cast-iron and 232,000 tons of raw iron, representing together a value of 90,000,000 francs. The present production in Belgium, or rather the stock in the market, is, it is true, very great, but it is proper to observe that this abundance arises in a great measure from the excessive development of the iron trade in 1836 and 1837, which has since undergone a sad reaction. Besides, let it be borne in mind that France has to make railways, which have been long delayed, and that then all the country would gain by the facility of obtaining iron at a cheaper rate, and the ironmasters would, doubtless, find a ready sale for their products in the general demand which an extensive system of railways would create.

FOREIGN IRON IMPORTED INTO FRANCE.—The *Moniteur* publishes a rapid enumeration, dated the 25th ult., whereby foreign iron, whether melted or cast, brought into France for the purpose of being galvanised, may be admitted duty free, on guarantee that it shall be re-exported within the space of two months, the customs-house officers securing proofs of its identity by stamps or other marks, or by keeping specimens. All waxes, resins and other articles, the circulation of which in France is prohibited, are excluded from this privilege.

LOCOMOTIVE AND RAILWAY RAILWAY.—On Saturday last, Sir Frederick Smith, the inspector of railways, made his official survey of that portion of this line at present unopened to the public, from Haywards-leath to Brighton. Sir Frederick, who was accompanied by the chairman of the directors, and Mr. Rastick, the company's engineer, expressed himself perfectly satisfied with the state of the line.



**NATIONAL BRAZILIAN MINING ASSOCIATION.**—Pursuant to a resolution passed at the Special General Meeting of the shareholders of this association, the directors propose to BORROW, for the term of two years, the SUM OF TWENTY-FIVE THOUSAND POUNDS, on the security named in the report, a copy of which may be obtained at this office, where every information on the subject will be afforded.

The directors will issue BONDS in sums of not less than £250 each, bearing interest at the rate of 5 per cent. per annum, payable half-yearly, the first payment to commence on the 15th of March, 1842, and at the expiration of the two years—viz., on the 15th of September, 1843, the principal will be repaid with a bonus of 15 per cent. on the amount of the same. The instalments to be paid as follow:—On the 15th of Sept., 1841, 25 per cent.; 15th Dec., 1841, 25 per cent.; 15th March, 1842, 25 per cent.; 15th June, 1842, 25 per cent.

Application for the above bonds to be made to the secretary of the company, stating the amount required. A preference will be given, in the first instance, to the shareholders of the association, after which they will be distributed *pro rata* among the applicants, according to the dates of their respective applications.

By order of the board,  
26, Throgmorton-street, September 5. **WILLIAM MAKINER, Sec.**  
N.B.—Application for reports may also be made and every information obtained from Messrs. Willis, Bower, and Willis, solicitors, 5, Tokenhouse-yard.

**ANDREW SMITH'S PATENT WIRE ROPES,** for standing rigging, lighting conductors, stopping of blocks, mining, railway, and general purposes; about half the size and weight of hemp ropes, and 25 per cent. cheaper. Testimonials to that effect, with specimens, may be seen, and every information obtained, at the office, 74, Old Broad-street, city, 69, Prince-street, Leicester-square; manufactory, Mill-wall, Poplar; and also of the following agents:—  
Robertson and Co., 12, Gorse Place, ... Liverpool.  
Matthew Dunn ... Newcastle-on-Tyne.  
Joseph Botherway ... Plymouth.  
John Thompson and Co. ... Wigan.  
J. T. Trevellick ... Dublin.  
Thomas Moore and Son ... Wicklow.  
Perrin and Nolan ... Belfast.  
Coxes and Young ... Glasgow.  
James Kibble and Co. ... Leth.  
James Gunn ... Dundee.  
J. M. Deane, Clements's-lane, High-street, ... Dundee.

**ANDREW SMITH'S PATENT WIRE ROPES.**  
This rope has been in use for standing rigging in her Majesty's Navy, and in a great number of merchant vessels, for upwards of six years, and is giving the highest satisfaction; the rope is also employed in various mines and railways in different parts of the kingdom, but reference is particularly made to the Blackwall Railroad, where its capabilities have been most severely tested, for although it has been in use upwards of twelve months it has never broken, and continues to give entire satisfaction. Vide following extract from directors' report at late meeting of proprietors:—

"The adoption of the wire rope has been attended with complete success; it has never broken, although some portion has been in use for twelve months. In working the whole line with wire rope, care has been deemed necessary in watching the effects produced upon it, and the engineers have therefore advised that it should proceed gradually, but they are satisfied that ere long the hemp rope will be wholly removed from the line, except so far as a small portion may be required to assist the necessary elasticity in starting the trains, when this is accomplished, a great reduction in the annual expenditure, as compared with the hemp rope, will be effected."

#### PUBLIC COMPANIES.

**MEETINGS.**  
Porth Cawl Iron and Coal Company 44, Finsbury-square ... Sept. 21 ... 2.  
Sheffield and Wymondley Canal & River Navigation ... 21 ... 11.  
Bulwer Mining Association ... Warfield-road ... 28 ... 12.  
British Iron Company ... London Tavern ... 28 ... 12.  
Great Wh. Charlotte Mining Ass'n. George and Vulture ... 29 ... 1.  
Talacre Iron and Coal Company ... 20, John-street, Adelphi ... 30 ... 1.  
Tyndale, Consolidated Mining Co., 75, Threadneedle-street ... Oct. 6 ... 12-4.  
Northern and Eastern Railway ... London Tavern ... 7 ... 2.

**CALLS.**  
Bedmoor Mining Company ... 10s. Sept. 20. ... Bosanquet and Co.  
Trevellick Mining Company ... do. ... 30 ... London and Westminster Bk.  
British Colonial Bank ... 31s. Oct. 12. ... 15, St. Swithin's-lane.  
Bosmoor Iron & Coal Company 3d. ... 14. ... Masterman, Peters, and Co.  
The Miners' Company ... 10s. ... 15. ... Glyn and Co.  
East Tretford Mining Company ... 3s. ... 25. ... Barclay and Co.

**DIVIDENDS.**  
General Steam Navigation Co. ... 60, Lombard-street ... Sept. 27.  
Alliance Gas Company ... 30, Finsbury-circus ... Oct. 1.

#### NOTICES TO CORRESPONDENTS.

"**ALDERMAN LONG TOM.**"—We have seen the pamphlet referred to by "A Livery Man," but with the authorship of which we disclaim all knowledge—the subject, so far as relates to matter which has appeared in the Journal, is, in our opinion, of too serious a nature to be treated in so light a manner. Our correspondent, "M.," is also in error, in supposing it emanated from our office—we know nothing whatever of its origin.

In consequence of the numerous applications made to the Editor on subject of Advertisements which have appeared in the columns of the MINING JOURNAL, with reference to articles or materials used in the working of mines and the construction of railways, arrangements have been partially effected whereby all information necessary can be acquired on application at the office of the Journal, as also reference made to the various models, plans, drawings, and specifications, and where specimens may be seen, it being intended to devote a room to that express purpose.—It is further announced that measures are in course of being taken for rendering the office of the MINING JOURNAL the medium of acquiring information on all matters connected with mineral property, where plans and particulars of estates and mining materials for disposal may be consulted and obtained. Experienced agents in the several mining districts will undertake surveys, and furnish plans, sections, and reports, on mineral property and mining undertakings.

## THE MINING JOURNAL.

Railway and Commercial Gazette.

LONDON, SEPTEMBER 18, 1841.

In our last week's Journal we introduced a report by Mr. ANICHINI on the spelter trade, but which we at the same time stated we were not prepared to adopt. The inquiries we have since instituted confirm us in the opinion we then entertained, and, without assuming that intimate knowledge which it is to be supposed Mr. ANICHINI ought to possess on those points which are involved in his occupation as metal broker, we may proceed to submit facts and statistics on the subject, from which it will be seen that the conclusions at which Mr. ANICHINI has arrived are hasty, and not founded on correct data.

We purpose illustrating our remarks by figures, and, while we admit that there is a falling off in the home consumption of spelter in the past year, on reference it will be seen that on the first eight months of 1841, compared with 1840, it amounts only to sixty-six tons. We consider the argument adduced by Mr. ANICHINI as absurd, to suppose that any individual would "indulge his whim" by paying the import duty of 2l. per ton, and thus make a sacrifice simply for the purpose which he would imply. The "gradual increase in the quantity manufactured abroad" we beg to deny, for, on the contrary, it is to the falling off in foreign production that the rise is to be ascribed, as will be rendered evident by the tables accompanying these remarks. The analogy between spelter and tea and coffee appears to us to be a strange jumble; and even the argument as regards spelter and lead is incorrect, as will be readily observed, for if the manufacture of spelter be less than the required consumption, and the supply does not meet the demand, a rise in the market price is necessarily consequent. On the other hand, if the produce of our lead mines, or the imports, be greater than the trade require, a depreciation in price is the consequence; the value of each is ruled according to circumstances, and, in the present case, it is clear that the production of spelter is on the wane, and so that it is attributable the advance in price.

We do not pretend to say that the price of spelter is not affected by speculation, but such speculation, for a rise, appears to us to be founded on the known short production this year; and while it rules so high in the countries producing that article, it must, necessarily, hold its price here.

We will now take the statement of duty paid from 1837 to the present time, showing the home consumption, which, as we have already admitted, is a trifle below that of the like period for the year 1840. The following will be found to be the quantities entered for home consumption:—

1837, twelve months	Tons	2,335
1838 ditto		3,598
1839 ditto		4,480
1840, to August 31, eight months		2,429
1841 ditto		2,363

We will now proceed to the stocks on hand and probable consumption, from which it will be manifest that a deficiency may be contemplated for the present year of 6000 tons, which, in itself, is sufficient to justify the rise, and which, it will be seen by other statements we have acquired, are borne out by the actual operations of the past twelve months, when compared with our present position. The following may be taken as the present stocks on hand and probable consumption:—

Stock in England now altogether	Tons	2,400
Supposed receipts further from Dantzic		1,000
Stock at Hamburg		1,000
Total stock	Tons	4,400
Our own wants to April next for home use—say		2,500
Short shipped India		2,000
France wants		6,000
Total consumption	Tons	10,500

showing a deficiency, as already stated, of 6000 tons.

We will now take the exports for the last four years, from which it will be seen that, during the first eight months of the present year, a serious falling off has taken place, which is from the very limited quantity sent to India—from whence extensive orders may now be expected:—

1838, twelve months	Tons	1,858
1839 ditto		3,391
1840, to August 31		3,335
1841 ditto		1,168

Having given an approximation of the stocks and probable consumption for the present year, our home consumption, from 1836 to 31st August, 1841, and the exports, it will be well to compare the comparative shipments of spelter from Silesia to Stettin and Hamburg, from 1st January to 31st August, in the years 1839, 1840, and 1841, which are as follow:—

	To Hamburg.	To Stettin.	Total.
1839	8,675	4,425	Tons 13,100
1840	5,415	4,455	9,870
1841	3,085	3,305	6,390

These figures should alone be conclusive of the falling off in production, while consumption is on the increase. The following statement, with which we shall close our remarks, has been rendered us by a correspondent, on whom we can place every reliance as to the authenticity of the document, and which will be found fully to corroborate the view we have taken, that of the rise in price being alone attributable to natural causes and not to an artificial state of the market. The production for the present year, assumed on the basis of that of 1840, would present the following as the total produce or make from the respective countries:—

Silesia	Cwts.	279,000
Poland		30,000
Cracow		30,000
Belgium		80,000
Total	Cwts.	379,000
Or	Tons	18,950

We here have a produce or supply of 379,000 cwt., or 18,950 tons.

Let us next see what is the demand or consumption; the subjoined statement will, we have reason to believe, be found pretty accurate:—

Prussia—For rolling in the Government mills	Tons	5,200
Austria—All Cracow production		1,000
Belgium—Exports in sheets to America		800
For its own consumption in sheets, and exports to Holland and Rhenish provinces of Prussia		1,800—2,500
Poland—For rolling		500
Exports to Russia (a contract)		1,000—1,500
France consumed an average quantity in 1838, 1839, and 1840 (will consume the same in 1841), of		9,750
England—For consumption and exports to India, &c., consumed in 1839 & 1840		8,500
Ditto 1841		8,500
Supposed demand, 1841		8,000
Total	Tons	35,150

thus showing a deficiency of about 6000 tons, without making any allowance for parcels kept back by producers or held by speculators, and thus confirming the position before taken.

We are well pleased to find that the conclusion at which we arrived, of awaiting the issue of the meeting of the Talacre Coal and Iron Company, is justified by the result, as will be seen on reference to the report of the proceedings at the meeting, held on the 16th inst. For the reasons already assigned, we shall not attempt to anticipate the report of the directors, nor the decision at which the committee may arrive, but reserve such observations as may apply to the disclosure of facts embodied in the report (now referred to a committee to examine and report upon) until after the meeting of the 30th inst.

It, however, behoves us, in the meantime, to take some notice of the proceedings at the meeting, and such information as may have already been presented to the shareholders through the medium of our columns—in doing which we are influenced, more especially, by the near approach of a period when the name of the chairman and solicitor of the Talacre Coal and Iron Company will be submitted to the Livery of the City of London as a candidate to fill the civic chair for the ensuing year. If that men seek honours, and will thrust themselves forward on public notice, they must needs expect that their conduct will be advertised upon where want of rectitude is manifested—and hence our notice, on the present occasion, of the misdoings of Mr. Alderman Talacre Wood. This gentleman was one of the original directors, if not the connectors of the scheme; the sum proposed to be charged, as the purchase-money, was 110,000l., of which a certain portion was to be paid in money, and the remainder in shares, on which the full

sum of 50l. per share was represented as being paid. According to report, and we have reason to believe as matter of fact, Mr. Alderman Wood received a certain number of shares as a consideration for services to be rendered by him as chairman of the company. He was further appointed as solicitor of the company, and, in such capacity, acquired information which could not but render open to him all the *minutiae* of the scheme.

Mr. Alderman Wood then proceeds to Dublin—he gets up, with the assistance of the virtuous Dublin aldermen, a public meeting—he makes a speech, and humbugs the Dublin citizens, who are fools enough to embark in the Talacre adventure, instead of employing their capital at home. A series of articles appear in the MINING JOURNAL—they are unheeded by the alderman; he tells Mr. PARKIN, in December, 1840, that he had never seen the articles until within a few days of the date of his letter, although he had, months before, called at the office of the MINING JOURNAL and requested a meeting. In July, 1840, a meeting of the proprietors is held—Alderman Wood presides; he is not then the innocent dupe he would now wish us to suppose him to have been at the concoction of the scheme, for he had visited the concern—he was the solicitor of the company—he was the chairman of the board of directors—he had made himself master of all matters connected with the company and its operations, to enable him to make the very lucid statement which blinded the citizens of Dublin—and hence any expression falling from him at the meeting referred to—being the first held since the formation of the company—was assumed by the meeting as matter of fact. Not so with us. We knew well that Mr. Alderman Wood made declarations to the assembled shareholders which were deliberate falsehoods, and which must have been known to be such to the learned alderman.

It is unnecessary, on the present occasion, to go into figures, but it will be in the recollection of all who attended that meeting, as well as the readers of the MINING JOURNAL, that Alderman THOMAS WOOD, as chairman of the board of directors, assured the proprietors that the affairs of the company were in so prosperous a state that the directors would be justified in declaring a dividend, and which they only declined doing from a conviction that the surplus acquired might be more beneficially applied in the extension of the operations of the company. This gross misrepresentation was made when the company were tens of thousands in debt, and without any prospect of the means of discharging their liabilities. What is the present position of the company, even after the "knocking off" of a large portion of the purchase-money by the abandonment of the paid-up shares, those apportioned to Mr. Ald. Wood being amongst the number? Why 40,000l. to 50,000l. have been expended, and, if we mistake not, the liabilities of the company at this moment, including the debentures, amount to 45,000l.—executions have been already issued against certain parties, and no one shareholder is safe.

Mr. Alderman Wood, we must admit, at the meeting held on Thursday, separated himself, in a great measure, from the opposition raised on the part of Mr. Deputy WESTON and Mr. Ald. HYNDMAN, and expressed his earnest desire that a fair and impartial investigation should take place—the consequence of which was, his nomination as one of the committee. This must be wormwood to the other parties implicated, and form subject for gratulation on the part of Alderman WOOD; the inquiry, however, has yet to take place—facts known to us, and which cannot be refuted, will disclose much. We only regret that the meeting was not held on the 28th, instead of the 30th, inst.; however, we think sufficient is before our readers and the Livery (at least such part as are conversant with proceedings of this nature) to induce them to pause ere they elect to the high office of Lord Mayor, or Chief Magistrate, of the City of London, a man whose character is so affected as that of Alderman THOMAS WOOD by the charges advanced, not one of which has, up to this moment, been replied to or negated.

We are at all times averse to bring before our readers any matter pertaining to ourselves, but, in consequence of a representation being made to us at the late meeting of the Talacre Company, by the chairman (Mr. CHAPPELLOW), that a cheque for 20l. had been handed Mr. DAVIS, and which was represented as being a payment made to the MINING JOURNAL, and construed by that gentleman and his co-directors as being "hush money," or a bribe to prevent further disclosure of abuses, we felt it our duty at once to institute inquiries. We have to acknowledge the readiness afforded by Mr. Ald. WOOD, Mr. DAVIS, and Mr. WILLIAM CLOUSTON (the late secretary in Ireland), as also by the chairman, in admitting access to the books of the company. The following letter received from Mr. DAVIS, the substance of which has been confirmed by Mr. CLOUSTON, is sufficient for our purpose:—

Sir,—I feel much indebted to your candour for informing me that an assertion was yesterday publicly made in the office of the Talacre Company, to the following effect—viz., "that I had received a 20l. cheque for the purpose of handing to the Editor of the Mining Journal, in order to bribe him to silence or forbearance in respect of the Talacre Company." Let that my silence may be fairly interpreted into an admission of this atrocious allegation, I hasten to negative it with scorn, and in the most unequivocal and unreserved manner to pronounce it to be in all and every particular a gross and palpable falsehood. I never received that or any other sum of money for the purpose assigned; nor did I ever pay to you, directly or indirectly, any sum of money except for papers or advertisements, on the same terms as charged to any one else.

I beg to assure you, Sir, that I entertain too high an estimate of your honour and manliness to presume to insinuate by such a proposition, were I not even restrained by the respect I owe myself. Besides, I had no motive whatever in asking you to suppress or conceal any fact in which myself or friends were concerned, nor did I ever ask you to do so. I have always found the columns of your Journal open for the correction of any injustice which may have been inadvertently inflicted on an individual, arising from misinformation or false representation. This is not the first of a series of mendacious, premeditated, and malicious statements which has emanated from the same quarter, but which assuredly, and in due time, will meet retributive justice. I have received several sums of money from the directors, which have been appropriated as I was instructed.

Yours, &c., Sept. 16. I am, Sir, your obedient servant, J. DAVIS.

We should observe, that Mr. DAVIS has misunderstood the representation made him by us, which was, that a cheque for 20l. had been received by him for the MINING JOURNAL, without any authority or knowledge on our part, and that the construction put upon the transaction by the board, in the absence of any account or particulars appearing in the books, was that it was applied in the manner mentioned.



## ORIGINAL CORRESPONDENCE.

## THEORY OF THE STEAM-ENGINE—MR. PARKES AND M. DE PAMBOUR.

TO THE EDITOR OF THE MINING JOURNAL.

SIR.—M. de Pamboir has recently repeated, in several of the weekly and other periodicals, certain violent strictures on my writings. I am at a loss to conjecture on what grounds that individual should have indulged in these, as well as in his earlier, and nearly similar, attacks upon me. I have, hitherto, declined replying to them, and for two reasons: first, I did not wish to convict a man of M. de Pamboir's celebrity of deliberate misrepresentation; nor, secondly, to expose, more publicly than he had himself done to persons really conversant with the steam-engine, his lamentable ignorance of practical matters. But his resumption of these attacks, in the present form, renders it incumbent on me to be no longer silent. I, therefore, avail myself of the same medium of communication, and shall confine my reply to the exhibition of one instance of his gross ignorance, and of one instance of his numerous, and injurious falsifications of my opinions and writings.

Every engineer is acquainted with the catarrh, an instrument nearly as old as Newcomen's engine, and used for the purpose of opening the steam induction valve, and thus starting an engine after any required period of rest. This species of water clock is also occasionally employed to open other of the valves, at definite times. The Cornish engineers appreciate its value, not only as a means of regulating the number of strokes to be made by a pumping-engine in a given time, but also as effecting the influx of steam into the cylinder in the most instantaneous manner. Neither they, nor any other engineer, ever, probably, imagined the catarrh to exercise an influence over the production of steam in the boilers of their engines. The Comte de Pamboir, however, ascribes to the instrument this marvellous virtue, in the following passage:—"We will finally remark, that it is customary in these engines to make use of the catarrh. Under this circumstance the engine does not evaporate the full quantity of water that its boiler would otherwise be capable of evaporating per minute; but on introducing into the formula the evaporation really effected, the formula will always give the corresponding effects of the engine."

This is, verily, a new theory. No observations of mine are requisite to illustrate the absurdity of theories and formulae, emanating from a person who is so little versed in the mechanism and auxiliary apparatus of an engine, as to jumble together, and confound, in one paragraph, the distinct functions of the catarrh, the boiler, and the engine.

In a later work, M. de Pamboir has devoted no less than sixteen pages of introductory matter to a criticism of my paper "On the Locomotive-Engine" (published in the *Transactions of the Institution of Civil Engineers*, vol. iii.), in which, among others, I had occasion to examine his own experiments. In that paper not a word will be found disrespectful of M. de Pamboir, his sentiments are treated with courtesy, and, at the risk of being thought tedious, I prefaced each of my observations on his conclusions with a quotation of the matter commented upon. M. de Pamboir's reply contains numerous misapprehensions of my meaning, and arguments, of which I do not complain; but every author has fair ground of complaint against the antagonist who perverts his text—who invents arguments for him—or who cites, as authentic quotations, phrases which he never employed. In no one instance has M. de Pamboir quoted my own words; in lieu of which he has frequently invented words for me. The following extract affords a concise example of the veracity and style of the sixteen pages of criticism:—"The want of using equations, which facilitate so much accuracy in mathematical reasoning (and the author accounts for it in telling us that he is more accustomed to handle his hammer than his pen), causes him to heap errors on errors, combining, and complicating them unawares, till he arrives at a point where he does not produce a single result that is not erroneous."

The paragraph in *italics* is a pure invention—no such words even occur in my paper as "hammer" or "pen." The writer who resorts to the miserable tactics of falsifying the language and opinions of one who differs from him on subjects open to large controversy, exhibits a consciousness of inferiority in his arguments, which it would have been wiser, and far more manly, to acknowledge, than to attempt to conceal, by expeditious and unworthy, and so certain of detection. Such a man may, possibly, be a skilful mathematician, but he cannot claim rank among philosophers, whose sole objects are the discovery and propagation of truth. I consider myself exonerated from all obligation to reply, in greater detail, to an adversary who descends to such ignominious practices; but justice to my own reputation requires that I should expose them to public reprobation. This I do with more regret, as I have derived both instruction and pleasure from some parts of M. de Pamboir's researches.

I remain, Sir, your's, &amp;c.,

12, Great College-st., Westminster, Sept. 13. JOSIAH PARKES.

\* *New Theory of the Steam-Engine*. J. W. 1829. Chap. xi. p. 279.—"Cornish Single Pumping-Engine."

† *A Practical Treatise on Locomotive-Engines*. 2d edition. J. W. 1846. "Introduction," p. xxviii.

[A copy of the Chev. de Pamboir's paper, referred to by Mr. Parkes, was forwarded us, but, from the objectionable nature of its contents, we declined its insertion in our columns. The discussion of so important a subject should be divested of personalities.]

## EFFECTS OF SMOKE ARISING FROM BLASTING.

TO THE EDITOR OF THE MINING JOURNAL.

SIR.—Having observed in my travels through quarrying districts the great inconvenience experienced by the men from the smoke when blasting in long tunnels, and feeling convinced that a cheap remedy might be found if men of science were to turn their attention to the subject, I take the liberty of addressing you, in the hope that either yourself, or some of your ingenious correspondents, may be able to throw out some useful suggestions, which I have no doubt will be duly appreciated by those whom they are intended to benefit. By inserting this in your valuable Journal, you will much oblige,

Sir, your obedient servant,

Sept. 13.

J. E.

[We presume that the means applied to the extraction of foul air from mines is applicable to the riddance of smoke in the case referred to by our correspondent. Mr. P. N. Johnson, in a letter in the *Journal*, adverted to the plan adopted by him at the Tamar Consols, a description of which that gentleman has promised; there are several plans for the introduction of air by air pipes, fans, and other contrivances, as well as getting rid of the smoke or foul air by means of extraction. The subject, however, will, doubtless, attract the attention of such of our readers who are practically acquainted with the subject, and who will, doubtless, put our correspondent in possession of more particular information.]

## ALLEGED IMPROVEMENT IN LOCOMOTIVE ENGINES.

TO THE EDITOR OF THE MINING JOURNAL.

SIR.—My curiosity was a little excited on seeing the following paragraph in the *Newcastle Courant* newspaper on Saturday last, and, as your paper is the most proper medium for circulation, I cannot help availing myself of the opportunity of copying it and sending it to you, as it is quite wrong to keep anything that is a public benefit bound up within the compass of a snuff-box:—

Messrs. Coulthard, Gateshead, have just completed a powerful locomotive engine, including all the modern improvements, with, in one respect, a novelty in construction, of great practical advantage. This consists in the rejection of what may be called the "cinder chamber," so that the bars are exposed to the external atmosphere, and the ashes fall directly upon the ground. Thus, the bars being presented to the cold air on the outside, they do not waste away with that rapidity which is consequent upon the ordinary construction, and considerable economy is the result. The engine is built more for power than for speed; the works are placed (chiefly) on the outside, and are of peculiar service for purposes of repair. Mr. Nicholas Wood, under whose superintendence she was built, is so much pleased with her construction, that he has adopted her as his own, and she has been honoured with the name of the *Nicholas Wood*. Trial was made of her powers on Thursday last, in the presence of Mr. Wood and other gentlemen, who were much gratified by her performance, and in a few days she will be removed to the Clarence line.

I have not seen this wonderful engine, yet I am not afraid to contradict his first statement—"including all the modern improvements"—as there are many modern improvements with which neither Mr. Nicholas Wood or Messrs. Coulthard are acquainted, which fully developes itself in the following sentence—"novelty in construction, the rejection of the cinder chamber." Mr. Wood does know that it has been tried before in several engines—I shall name one before I conclude. It is likewise a query, whether the bars are not better for the air being tempered a little before it comes in contact with the grate or not. What he boasts of, displays his entire want of practical knowledge; and before his engine works one month he will be obliged to put on a "cinder chamber." Who has told them there is such a saving?—(he imagines there will be.) What are they

power?—The works are placed (chiefly) outside, and are of peculiar service for purposes of repair." Then, this wonderful animal wants repairs. "Mr. Wood is much pleased with her construction—he has adopted her as his own." Speak the truth, gentlemen; he ordered her, and furnished the plan—yes, a plan got up with much gleaning, and is much pleased; and so he may, for I should question whether he expected her to turn round at all or not. "And in a few days she will be removed to the Clarence line."—That is a wilful mistake; it is not the Clarence line—it is a line from his colliery, near Bishop Auckland, which joins the Clarence Railway, where it is intended to display its wonderful properties. I hope you will excuse me, Mr. Editor, in troubling you with this long letter, but I know you feel, like myself, interested in spreading useful information on a subject so important at the present era.

I have the honour, &amp;c.,

Newcastle-on-Tyne, Sept. 13.

Y. Z.

## THE SULPHUR TRADE.

TO THE EDITOR OF THE MINING JOURNAL.

SIR.—In reply to your correspondent, "A Constant Reader," whose letter, advocating an import duty upon sulphur, appears in the *Journal* of the 11th inst., I am induced to offer a brief remark. I am now fully satisfied that British and Irish sulphur may be manufactured at a price to compete with Sicilian sulphur, subject to the lowest amount of export duty proposed by his Volcanic Majesty, and the present import duty here of 10s. per ton. I know that a very simple process is matured for extracting sulphur in a state of the greatest purity from metallic sulphurets, in which no material is actually consumed but some stone coal culm. A company conducting the manufacture with judgment and spirit might defy foreign competition. The most judicious arrangement would be to have a manufacturing establishment in this locality, in connection with one near the mines in Cornwall or Ireland, in order that vessels might have cargoes both ways—loading to this with ore, and back from hence with culm—freight would be thus secured at all times on the lowest terms, there being a certainty of back carriage without detention. There is an extensive deposit of pyrites on the west side of Ireland, from whence, if my information be correct, a supply may be derived upon much lower terms than those you quote in the county Wicklow. I am an advocate for free trade, since I think that if any branch of manufacture requires the aid of protective duties to support it it must rest upon a poor foundation, and cannot be regarded as being in a healthy state. In the case of sulphur, however, being a new manufacture, I should be glad to see the present duty of 10s. per ton raised to 50s., by way of fostering it in its infancy. Some extraordinary inducement, in the shape of extravagant profits, must be held out to capitalists to embark in untried schemes. Capital is never freely directed by capitalists but only to such objects as the capitalist understands—hence little capital is directed to complex trades, or to any trade, till the simplest sources of profit are supplied. I trust you will be supported in your next application to the Legislature, but am of opinion 50s. per ton a sufficiently high duty.

Surrey, Sept. 14.

I remain, Sir, your's, &amp;c., A CHEMIST.

[We agree with our correspondent as to the duty, which, indeed, we think, need not even exceed 40s. The produce of the Wicklow sulphur ore may be taken at three tons to one ton of sulphur; this, we will assume, put free on board at 25s. per ton, although the present price is 3s. or 4s. a ton less—add thereto freight to Liverpool, 5s. a ton, or to the north, 6s. to 10s.—the cost would, taking the highest, be 35s., or 54s. 6d. per ton of sulphur. Our correspondent observes on the use of stone coal culm, but this, so far as our observation has gone, is not required, except for the "smalls" the sulphur ore, when broken down, consuming itself after being once ignited. We are not aware of the deposit of sulphur ore on the "west side of Ireland," but as regards the east, there need be no apprehension of want of supply. We shall be glad to hear again from "A Chemist."]

## ON MINE SURVEYING.

TO THE EDITOR OF THE MINING JOURNAL.

SIR.—Lest either you or your readers should think that I am more willing to set pitches or bargains to others than to do any other part of the work, I herewith furnish the computation and solution of the problem that appeared in the *Journal* last week, with my name attached to it.

ANGLES AND MEASURES.				TRIANGULAR RESULTS.			
No. of Draughts.	Deg.	Bearing	Length	East.	West.	North.	South.
1.	194	74 S of E	43	43	0	0	0
2.	154	164 E of S	44	0	10	0	51
3.	154	16 W of S	23	0	10	2	30
4.	194	164 E of S	67	10	0	0	53
5.	144	34 W of S	21	4	0	0	17
6.	172	312 E of W	53	6	0	0	28
7.	219	59 E of S	30	3	0	0	23
surface survey reversed.							
8.	144 E of N	73	2	4	1	0	0
9.	144 W of N	53	7	0	13	11	0
10.	32 W of N	83	11	0	44	6	71
				99	125	8	197
				99	3	0	197
				Westing	26	0	0
				South	6	0	0

The whole survey is now reduced to the two sides of a right-angled triangle (the perpendicular being 26 ft. 3 in., and base 6 ft. 1 in.), the hypotenuse of which is the length of the required cross-cut, and the angle opposite the base its reverse bearing, which, by any of the rules of right-angled trigonometry, will be found as follows:—viz., length of cross-cut from adit end to central point of new vertical shaft, 26 ft. 11 in.; bearing 13 deg. 2 min., or 13 deg. north of east; depth of new shaft from brace to bottom of adit, 20 fms. 3 ft. 8 in. For the sake of the aspiring young miner, who may be just entering the portal of science, we feel impressed with a desire to go into explanation, and give "the why and the wherefore" of everything connected with the foregoing little survey that may not be quite self-evident to him, but, as there is a wide field before us, I suppose there will be ample demonstrations from many quarters, and that no essential point will remain obscure.

In order to keep "the ball a-going," I beg leave to send another course of dialling, but should, in the interim, any of your correspondents furnish a problem requiring an immediate answer, you may order this to be laid on, or thrown under the table, just as your Editorial judgment may dictate.

## CASE II.

SURVEYED WITH A LEFT HAND DIAL.

In a twenty fathom level, driving on an east and west line, underlying north, a wire has been commenced, bearing due north, and it is determined to pitch a rise against it in the forty fathom level (the thirty fathom level not having been driven far enough east to rise from). The following is a statement of the dialling from the middle of the above wire, to the twenty, through the level west towards another wire sunk to the thirty fathom level, viz.:—

No.	Degrees.	Pl. in.	No.	Degrees.	Pl. in.
1.	204 degrees	19 10	3.	204 degrees	23 6
2.	206	61 0	4.	204	77 8

This brings us to the wire communicating with the thirty fathom level, which we may call No. 3; length, 65 feet, underlying, 224 deg.; bearing by east of north. From the foot of this wire in the thirty fathom level is continued west to another wire communicating with the forty fathom level, viz.:—

No.	Degrees.	Pl. in.	No.	Degrees.	Pl. in.
6.	204	27 2	8.	204	40 9
7.	204	36	9.	204	52 0
8.	204	204	10.	204	40 8

This brings us to the wire in the forty, which we call No. 9; length, 70 ft. 4 in.; underlying, 214 deg.; bearing, 4 west of north. From the bottom of this wire in the forty the course turns east, and is continued in that direction, viz.:—

No.	Degrees.	Pl. in.	No.	Degrees.	Pl. in.
10.	80 degrees	40 4	13.	90 degrees	27 8
11.	77	28 0	14.	72	22 4
12.	194	76 0	15.	90	107 2

continued on the same bearing. At the end of this fifteenth draft we place an assumed mark in the bank of the forty fathom level.

I remain, Sir, your obedient servant,

Cullington, Sept. 13.

JOHN BUCK.

[We are sorry to say that we have not received, as we expected, communications solving the problem submitted last week by Mr. Dodge. We trust, however, that practical questions of this nature will attract the attention of our practical readers, and that they will lend their aid in rendering the *Mining Journal* equally useful to agents and those engaged in the working of mines, as we believe it to be to those who embark their capital. We shall be glad to receive contributions of this nature, and, as we said last week, will take care, at all times, to find a corner.]

## REAL DEL MONTE MINING ASSOCIATION.

TO THE EDITOR OF THE MINING JOURNAL.

SIR.—Referring to the "statement of accounts (in the last week's *Journal*), showing the position of the Real del Monte Mining Company's affairs for the eleven years," from 1830 to 1840 inclusive, it appears that nine of these years—namely, 1830 to 1836 inclusive, and 1839 and 1840, occasioned a loss to the company of 1,591,312 dollars, from which the profits of the years 1837 and 1838 being deducted—76,740 dollars—leaves the loss for the eleven years 1,514,572 dollars; or, at 4s. per dollar, 302,914l. sterling.

I have now before me an account of the money raised in England, and received by the directors from the shareholders, and in loans, according to the official account, as follows:—

	1824 & 1825	1,000 shares at 400l. per share	400,000 0 0
1828 (Nov.)	654	160l.	98,100 0 0
1829 (Aug.)	10	conv. from loan up. at 180d.	1,500 0 0
1830 (Feb. & March)	1,053	26l. per share	27,378 0 0
1831 (Feb.)	1,807	13l. per one-third share	23,695 0 0
1832 (Nov. & Dec.)	3,530	10l. per half share	35,300 0 0
1833 (June & July)	2,674	44l.	117,736 0 0
1837	2,400	24l.	57,600 0 0
1840	12,722	24l. per sh.—at 10s. 10s.	6,111 0 0
		do do	2,428 10 0
		do do	35 0 0
		do do	50 0 0
			302,914 10 0

Loan contracted June, 1827 ..... £48,000 0 0  
Feb. 1838 ..... 80,750 0 0  
Debts of the company December, 1840 ..... 6,120 4 1—141,408 4 1

Total ..... £400,000 0 0  
Your statement (of Saturday) exhibits the company's loss for 11 yrs. 302,914 10 0

The balance to be accounted for is ..... £400,000 0 0  
Can you inform me if this sum was expended in London charges, or preliminary disbursements, or lost in the years from 1824 to 1829, or at present in hand? Your most obedient servant,

London, Sept. 16.

S. M.

[We refer our correspondent to the accounts of the company submitted at the general meetings of proprietors, from which he will acquire the information sought.]

## DURHAM COUNTY COAL COMPANY.

TO THE EDITOR OF THE MINING JOURNAL.

SIR.—In the observations you have made on a letter addressed to you by Mr. T. C. Gibson, and which appears in your last Number, you remark somewhat harshly on the conduct of the present directory. The following gentlemen constitute the Durham board:—F. S. Stokes, resident director; G. T. Andrews, of York; H. Panton, of Sunderland; J. Williamson, of Masham; W. W. Bentley, of Helmsley; Mr. Lief, vice Mr. Gibson. The directors requested Mr. Gibson to withhold his letter of resignation, from a conviction that it was not to the interests of the company that he should be removed from the direction, and with the hope that they could induce the Rev. Mr. Dixon to withdraw his motion. Mr. Williamson, Mr. Bentley, and myself, attended a numerous preliminary meeting of proprietors, held on the same morning, but previous to the general meeting, and then and there individually opposed the contemplated motion for the removal of Mr. Gibson.

With respect to the withholding of the letter, I wish to state, that this arose simply from the officer of the company neglecting to bring it with him, with the other papers, from the company's office at Stockton to the general meeting at Darlington. The letter was left by Mr. Gibson at the company's office, at Stockton, on the 24th of August. My brother directors, and myself, who live at a considerable distance, had no control over the letter in question, and did not know of its being left behind, until we met at Darlington on the 31st of August. Under the circumstances, I thought it only just to Mr. Gibson to propose a resolution at the general meeting, that a copy of his letter should appear on the minutes of that day's proceedings—which motion was carried.

I am persuaded the present directory are sincerely desirous of discharging their duties with honour to themselves and fidelity to their constituents; and while they feel, from the opportunities afforded them by their official position, they are better enabled to arrive at a sound opinion than the shareholders in general, they cheerfully make every allowance for the irritated feelings of a proprietary so grossly deluded as that of the Durham County Coal Company. The directors are firmly determined to use every means in their power to obtain redress from the original sellers and promoters of the collieries, and acknowledge with pleasure the fearless and able assistance which you have, on former occasions, rendered the company in the pages of your intelligent *Journal*.

Yours, &amp;c.,

G. T. ANDREWS.

[We readily insert the letter of Mr. G. T. Andrews, which, however, does not assign the reasons entertained by himself and co-directors for opposing "the contemplated motion for the removal of Mr. Gibson," nor does it convey any report of the proceedings at the "numerous preliminary meeting of the proprietors," held on the morning of the general meeting. The circumstance of Mr. G. T. Andrews and his brother directors living at a considerable distance, and having no control over the letter in question, would lead us, in the absence of explanation as to the mode in which the affairs of the company are managed, to infer that there is a degree of laxity, which is calculated to be prejudicial to the interests of the proprietors; however, this may, and, doubtless, will, be readily explained. That the present directors "are sincerely desirous of discharging their duties with honour to themselves as fidelity to their constituents," we do not entertain a doubt, which is already evidenced by the measures already adopted with respect to the conduct of the scheme; at the same time, we could not, nor can we, without further information, consider the course pursued by the directors, and recommended by them, as regards Mr. Gibson—which the proprietors rejected—as being calculated to promote the interests of the company. It is clear, at least, that the shareholders thought otherwise.]

## DURHAM COUNTY COAL COMPANY.

TO THE EDITOR OF THE MINING JOURNAL.

SIR.—It is curious to observe how an ingenious man can sometimes mystify a very plain matter; your laboured commentary on Mr. Gibson's letter leaves nothing to be wished for in this line, as you have contrived, by a few sentences, barbarously constructed, and badly expressed, to leave your own meaning in doubt, and to obscure what was before may to be understood. Taking Mr. G.'s letter as my text, and having some little collateral information at hand, allow me to offer you a solution of this knotty business.

1st. Why did Mr. G. resign?—Because a motion was to be brought forward for his removal, which motion, stating certain facts, involved in the minds of the shareholders certain inferences prejudicial to Mr. G. Now, as he could not attend the meeting, he thought proper to resign, if the motion was persisted in, that he might not be calumniated in his absence.

2d. Did Mr. G. do wrong in purchasing the five-quarry seam, and, if so, who was the party suffering wrong?—Look at facts: Mr. G. was not a director in either of these veritable companies when the original sale was made; he is, therefore, quite clear so far as the Durham Company is concerned. He bought of the Northern Company, after repeated solicitation, they being in want of money; if they bought under fraudulent representation, it is not very likely that they would sell on the valuation at which they bought, they would make something by the transaction, or else we must suppose that they committed a fraud for the sole and singular benefit of a third party. Mr. G., then, paying the real value of the seam, or such a price as any other party might have purchased for, was not entitled to ask the vendors how they came into possession, or on what terms. If Mr. G. had not purchased, would the Durham Company have been in any better position relatively to the Northern Company? The bargain was not made by the Northern Company prospectively for Mr. G., but the property was re-sold when money was wanted. It is to be feared that real grievances are scarce, when so much is done to create out of nothing.

Your obedient servant,

C. BRITTON.

[Our correspondent is pleased to be complimentary, and, having noted the "barbarously constructed and badly expressed" note appended to Mr. Gibson's letter in our last week's *Journal*, proceeds to deliver his sermon, or discourse, "taking Mr. G.'s letter as my text," so says Mr. Southam. Now, without laying claim to a greater stock of ingenuity than our correspondent possesses, or an attempt at mystification, to which he would appear by his first paragraph to be an adverse, we must admit that we have not that "little collateral information at hand" to which he lays claim in offering "a solution of this knotty business." We may next week be in a better position. Our correspondent asks—"Why did Mr. G. resign?" We refer him to that



gentleman's letter, from which it appears that the reasons assigned therein by him were not simply the grounds on which Mr. Dixon's motion was based—that of his being a shareholder in, and fitter to, the Northern Mining Company—but the impression on the part of the shareholders that he was mixed up with the parties who sold the collieries to the company. Let us see, even at the charge of a laboured commentary on Mr. Smithson's letter, what is the view taken by that gentleman. He says, the reasons of Mr. Gibson's resignation was—"because a motion was to be brought forward for his removal, which motion, stating certain facts, involved in the minds of the shareholders certain inferences prejudicial to Mr. G.," and hence, "as he could not attend the meeting, he thought proper to resign." Perhaps Mr. Smithson will inform us, had Mr. Gibson been present, how he could have refuted "certain facts?" Our correspondent next asks—"Did Mr. G. do wrong in purchasing the five-quarter seam, and if so, who was the party suffering wrong?" Mr. G., we are told, "was not a director in either of these veritable companies when the original sale was made." Admitted—but was he not intimately connected with the companies as "fitter," and with the individuals who fraudulently concocted these schemes? Was he not, in fact, aware of all that was going on? Mr. Smithson has much the advantage of us in the requirement of "collateral information," but his arguments are by no means conclusive. He says, in conclusion—"It is to be feared that real grievances are scarce, when so much is done to create one out of nothing." Our correspondent is evidently disposed to be waggish at our expense; he complains of our "laboured commentary," as a grievance, and makes "much to do about nothing"—verily, Mr. Gibson must hire a better advocate.]

#### TALACRE COAL AND IRON COMPANY.

TO THE EDITOR OF THE MINING JOURNAL.

Sir,—I yesterday attended a meeting at the office of the Talacre Coal and Iron Company, but whether of directors or shareholders, whether legally or illegally convened, it was beyond my power to ascertain; there was no lack of professional talent, each proprietor being attended by his legal adviser, and well was it for the interest of those who have embarked their money in the concern that they were so attended, for a more flagrant attempt to ride rough-shod over the shareholders, and to foist upon them and the public a one-sided report, it has never been my lot to witness. It unfortunately happens for the interests of public companies, and of society generally, that on every occasion of difference, they immediately run to a solicitor; it is not his interest to settle, but to widen the breach—a Chancery suit is a glorious prize, in which he is sure to gain possession of the oyster, the clients taking the shell. Whenever a solicitor is thus employed, he thinks, acts, and speaks, in the first person, and considers himself entitled to give advice (not gratis) to all those who are unfortunate enough to come within the range of his eloquence.

Mr. Ashurst is not the man to let such an opportunity pass, and yesterday took upon himself the duties of the chairman—the chairman's private solicitor—the solicitor to the company (to which it appears he lays claim without being elected)—and, finally, as the adviser of all those who chose to take for Gospel his own view of the company's affairs.

Mr. Wire attended on the part of a proprietor, and, by his decided opposition, prevented this one-sided statement being put forth to the world—disgraceful alike to the heads and hearts of those who planned and agreed to it; charges and insinuations were thrown out against certain members of the company, who had repeatedly offered explanation, and been refused a hearing; a paper was read by the chairman, said to be an account of some of the receipts and payments, and which was declared in the most decided manner by two of the proprietors to be false, and yet on such a statement Mr. Ashurst ventured to draw up a report; the directors did not attempt to deny that it was his report—not theirs—although they adopted it. The moment directors of a company are so perfectly in harness, as to suffer a solicitor to take all their duties upon himself, farewell to every prospect of success in the undertaking.

The meeting is adjourned to the 30th instant, and, in the meantime, a committee is appointed to examine and report; every proprietor will do well to attend on that day, and protect his own interest, and if they are wise they will undertake the management of their own affairs, and reduce Mr. Ashurst to his proper station—that of private solicitor to one of the directors. If they omit this they will have themselves to blame, for all the litigation and expense which will assuredly fall upon them, and the ruin and disposal of a concern, which, if properly worked, bids fair to be most flourishing. I am, Sir, your obedient servant,

Sept. 16.

AN OBSERVER.

[The subject matter of our correspondent's letter has been treated on so fully in our report of the proceedings at the meeting, and in the remarks we have been called upon to make, that our notes must be brief. We think "An Observer" premature in his conclusions, for, without he has a knowledge of the contents of the report, he is wrong in assuming it to be a "one-sided statement;" on the contrary, the chairman stated that the report was a collection of facts, and not opinions, it being for the proprietors to determine, after having heard them, whether there was any foundation for proceedings being instituted. We agree with our correspondent that the lawyers had too much to do with the business of the meeting, we think they ought not to have been permitted to take part, the meeting was made an arena of legal discussion, technical quibbles were raised, personalities indulged in, and the real object lost sight of. Such exhibitions as these only tend to disgust shareholders, and prevent them attending to their own affairs by being present on such occasions. We trust at the next meeting there will be less legal counsel, and that the proprietors will rely on their own powers of common-sense and reasoning. Surely they must know what "business" is, without consulting a lawyer. It comes as good when we see so many lawyers employed.]

#### TALACRE COAL AND IRON COMPANY.

TO THE EDITOR OF THE MINING JOURNAL.

Sir,—I yesterday attended, with some inconvenience to myself, a meeting of shareholders of this company—a company of which you know something, and one that would be much benefited by a renewal of your former strictures on the persons and actions connected with its formation. The devotion you have shown, in many instances, to the interests of legitimate shareholders in companies, is sufficient to prove to me that there is no truth in the rumour that you have become friendly with some of these notorious parties; and could you be induced to pay some attention to this matter, your observations would, I am sure, be received with thanks by the great body of shareholders.

I was much disappointed at the result of the meeting, for, I think, the fear of being thought uncooperative and ungentlemanly ought not to have operated upon the directors so far as for them to agree to postpone the reading of the report, and giving a copy, and allowing a fortnight for reply; the position of the directors was misapprehended by the legal gentlemen who were opposed to them. As a shareholder, I conceive they were not there as advisers of any one, but as the managers of a firm, whose duty it was to inform the partners generally of what was going on in their interests that had come to their knowledge. A great deal of nonsense was said by one of the connoisseurs about the value of the property—but that has nothing to do with the question. Nobody doubts the value of the properties held by the company; the question is, if a robbery to a great and ruinous extent, threatening to involve the company, collectively and individually, has been perpetrated in one part, in the probability of the other part proving advantageous, when the present holders are ruined, to compensate for the wrong inflicted. This is a critical time for the company, and the directors must not suffer themselves to be misled, nor their statements and facts fettered away by special pleading; and highly reasonable they will be, if, having determined to adopt a manly and spirited course, they be induced to lose sight of the justice we expect at their hands. I do not say this as fearing the issue, for I put every confidence in their integrity; but knowing the wily character of one of the parties, I know not what deception may be practised upon them. Their solicitor must not allow himself to go to sleep, or a snare will be sure to be taken by the adversary.

One word to the proprietors: they neglect their duty almost as grossly as the old directors did theirs. There is not a proprietor, if he build but one share, but ought to support the acting board as strenuously as if their all depended on the result—or, indeed, it does—far if they are defeated there is an end to any effort to rescue the company from its present situation; and this support cannot be given by sitting comfortably in their houses. We must recollect that these gentlemen have given much of their time and attention to war business, and it would be the height of business, as well as an act almost suicidal, to look calmly and complacently on, while they are struggling for truth and justice.

Great Russell-street, Sept. 16.

I remain, Sir, your's, &c.

ARBUS.

[Our correspondent notices a report, demanding our especial attention, which we have observed upon in another column—if we do not so fully enter on the subject at the moment as we feel disposed to do, it is only that we find it to be an act of justice to the parties implicated, in such the issue of the meeting on the 30th instant (when the report of the committee ap-

pointed to investigate the truth of the representations conveyed in the report prepared by Mr. Ashurst will be submitted), ere we enter into the subject at that length which its importance, as involving property and character, would lead us. With the opinions of "Argus" we fully concur; it was the duty of the directors to have read the report; they ought not to have allowed the question to be raised, as to whether the report should be read or not—the meeting was convened for that object, and we think the shareholders had a right to expect that the report would have been submitted. It was another question whether it be received and adopted, or whether it might not have been prudent to adjourn the meeting, and, in the interim, afford time to the parties implicated to explain or reply thereto. We think the directors were censurable in this respect; however, at the meeting to be held on the 30th instant, we trust that the proprietors will muster strong, and, without regard to one side or the other, grapple boldly with the facts which may be then submitted. Let them convince the connoisseurs of schemes based on deception and fraud, that the time will come when they shall meet their reward, and having punished the delinquents, then let them turn to business, ascertain what is the value of their property and its prospects, and, if on a survey by competent and disinterested persons, it be found worth working, our support may confidently be relied on, while no doubt need be entertained but that the capital required would, under honest and economical management, be readily subscribed. The board, however, must be composed of practical business men, and, above all, keep clear of the lawyers. The British Iron Company, we should think, was a sufficient lesson to shareholders.]

#### PROCEEDINGS OF PUBLIC COMPANIES.

##### TALACRE COAL AND IRON COMPANY.

A special general meeting of the proprietors of this company was held at their offices, 20, John-street, Adelphi, on Thursday the 16th inst.

WILLIAM CHAPPELLOW, Esq., in the chair.

The CHAIRMAN proceeded to read the advertisement convening the meeting, and circular issued to the shareholders, and then stated that the report prepared by the directors would be read.

Mr. DEPUTY WESTON rose for the purpose of inquiring the names of the directors at present constituting the board?—The CHAIRMAN, in reply, stated that the directors with whom the meeting originated, and whose report was about being presented, were Messrs. Taylor, Handasyde, and Chappelow, the three acting directors—that Mr. Alderman Thomas Wood had attended once at their meetings.

Mr. WESTON contended that the meeting was not legally convened, inasmuch that the deed stated there should be ten directors, whereas, by the admission of the chairman, the board did not consist of more than one-half the number—which remark was subsequently met by the chairman and solicitor, who stated that the proceedings were legal, as being under the direction of a quorum, three directors being sufficient for such purpose.

Mr. WIRE (acting as the legal adviser of Mr. Deputy Weston) objected to the proceedings, on the score of illegality, as advised, and proceeded to put questions to the chairman as to the acts of the directors, with the view of showing that they were not sufficient in number legally to convene the meeting, and, further, that the advertisement was not sufficiently explicit in stating its objects.

Mr. ASHURST (as solicitor of the company)—an appointment which Mr. Wire and others denied—replied, by stating, that he was prepared to contend, whenever the proper time arrived, that the meeting was legal, and that it had been convened under the provisions of the Deed of Settlement; however, whether the meeting was legal or illegal, for he wished not then to canvass the point, the object of the directors would be fully effected by the reading of the report, which was a collection of facts, and, indeed, a history of the company from its origin. With respect to any informality as regarded the proceedings, he most distinctly declared his conviction, that, from the concoction of the company up to that moment, everything had been done in an informal and illegal manner; that even Mr. Alderman Wood, the chairman and solicitor of the company, was not qualified from the beginning; and he submitted, that the report should be read, and if the meeting had been irregularly convened, that the proprietors present might consider themselves as a private assembly, anxious to gather information on those points which it was then in the power of the directors to afford—the present position of the company being known—the proper course to be adopted could then be fairly discussed, but it was indispensably necessary that the proprietors should be put in possession of the information which had been acquired by the directors by dint of severe application.

Here a lengthened discussion ensued between the two solicitors—Mr. Deputy Weston occasionally taking part—Mr. Wire requiring to know under what clause in the deed the meeting was convened, and, indeed, raising every technical objection in his power, the object being obvious from the commencement of the meeting, that of stifling disclosures, which he evidently feared to grapple with. At this stage of the business, a Mr. Hornidge (solicitor), as the representative of Mr. Alderman Hyndman, put several questions to the chairman, and, as appeared to us, raised several frivolous objections, which, we feel assured, his client, as one implicated in the concoction of the company, would not have done had he been present. In consequence of some observations being made, from which the meeting was led to infer that Mr. Alderman Thomas Wood was present at the board of directors when the meeting was determined upon, that gentleman stated that he was certainly present at an early period of the meeting to which reference was made, but being informed that he was not wanted, or that he could not render assistance, he thereupon retired, and therefore must not be considered as present on the occasion when certain resolutions were passed, although his name appeared on the books.

Mr. WIRE inquired whether the report about to be submitted was to be considered that of the directors or of Mr. Ashurst; and, further, whether Mr. Ashurst was to be considered the solicitor of the company?

Mr. ASHURST, in reply, considered himself as regularly induced into the office of solicitor; he had, at the request of the directors, devoted much time and attention to the investigation of the facts attendant on the concoction and general affairs of the company; he had prepared a report, confining it to facts, and which had met the approval of the directors.

A further discussion, of a somewhat personal and angry nature, as to the legality of the meeting or otherwise, ensued, in which the three lawyers (Messrs. Ashurst, Wire, and Hornidge) took the most active part.

Mr. ALDERMAN THOMAS WOOD rose for the purpose of expressing his readiness to meet any charges which might be preferred against him; he courted inquiry, and only wished for the opportunity of affording explanation as to his own conduct, which had ever been guided by the principles of moral rectitude and honesty of purpose; to him it was immaterial whether the meeting was legal or illegal, he was ready to answer any question, there was no shrinking on his part, the shareholders had, in his opinion, an undoubted right to demand an explanation, and, for himself, he claimed the right of having the opportunity afforded him of putting before the proprietors those facts of which they were in ignorance, and which would justify him. He did not wish to avail himself of any technicalities, to him, it was immaterial what might be the decision of the meeting; he should offer no opposition, but, on the contrary, was ready and most anxious to offer every information or explanation which could be required. He had already offered to do so, but such explanation had been declined; of the contents of the report, about to be submitted, he was in total ignorance.

The CHAIRMAN proceeded to read the report of the directors, which referred to a meeting of the directors in Dublin, by whom it was recommended that the present meeting be held, and which had been convened accordingly. The report went on to state the terms of requisition or advertisement, and expressed the conviction of the directors that gross injustice had been done the shareholders, referring moreover to the fact of the chairman (Mr. Ald. Thomas Wood) being, at the same time, the solicitor of the company—the necessity of calling in the aid of another legal adviser (Mr. Ashurst), who had investigated the affairs of the company, and drawn up a report thereon, and concluding with a recommendation, that the proprietors do empower the directors to follow up the resolution passed on 21st July, and to take such proceedings, whether criminal or otherwise, at law or in equity, as to them might seem meet, against the parties implicated in the concoction of the scheme.

Mr. HORNIDGE contended that the meeting was illegal; that the deed, providing for ten directors, and there not being the requisite number, all acts of the board were illegal—and proceeded, at some length, to contest the correctness of the position he assumed. He had "nothing to do with the facts," but was there to represent Mr. Alderman Hyndman, who had not been consulted as a director, nor was he a party to the report of the board; indeed, he was ignorant of the meeting being held, except by the circular.

Mr. WIRE, for about the seventh or eighth time, again rose to object to the reading of the report prepared by Mr. Ashurst—it was altogether an *ex parte* statement; the several parties implicated should have been called to testify; the parties attacked having had no opportunity of explaining, and the object of the report being to impute certain parties, whether blameless or otherwise, and who were to be held forth to the world, in the absence of any explanation, as culpable. Such parties were now called upon, at the moment, to reply to charges which it had taken months to draw up.

Mr. ASHURST, in reply, observed, that the parties were now present, and could afford explanation; the report was submitted to the meeting in the ordinary course, and it was for the proprietors assembled to determine thereon.

Mr. ALDERMAN THOMAS WOOD again rose to express his desire that every matter should be fully investigated, he courted inquiry, and deprecated everything in the way of opposition on legal grounds or otherwise. It was, however, in his opinion, unfair towards the parties implicated, to take them by surprise, it was easy to make up an *ex parte* statement, but which it might

be found difficult to answer at the moment; for his own part he wished to hear the report read, and accordingly moved the reading of the report.

Mr. DEPUTY WESTON, with much feeling, disapproved of the course pursued by the directors, and protested against the reading of Mr. Ashurst's report. The proprietors were groping in the dark, he wished everything to be above board, but he was convinced there was an under current at work, a letter having been placed in his hands ten minutes before the meeting, from which he learned that there were parties most anxious to obtain the property, and who were only awaiting the issue of the squabbles amongst the proprietors, expecting to pick up the concern for a comparatively small sum. On Mr. Weston being requested to read the letter he declined so doing, stating that he would not be made a cat's paw; he was willing to afford every assistance to the company, but they must meet him on other grounds than those which comprehended the probability of criminal or civil proceedings being instituted against him.—[Mr. Weston subsequently withdrew, and submitted the letter to Mr. Rawson, a proprietor, but the contents were not disclosed to the meeting.]—He insisted that the reading of the report would be suicidal on the part of the meeting. It was not with business men to look to the past, and add to the dissensions already existing, but to provide for the present and the future in meeting the liabilities to which the shareholders were subjected; if that the affairs of the company were allowed to go on quietly all would be prosperous—one pit, working on a small scale at present, yielded a profit, and was paying off old debts. The property was one of an important character, and to his knowledge there was no other of like value.

Here another of those almost interminable altercations between the lawyers took place, Mr. Hornidge claiming to be heard on part of Mr. Alderman Hyndman, and Mr. Ashurst declaring that the worthy alderman had never paid any money; it appeared afterwards that he did hold "the qualification shares," on which the first and second call had been lately paid, the other shares—3000*l.*, if we mistake not—held by him being a part of the spoil in the concoction. Mr. Hornidge further objected that the meeting was illegal, and that no business could be done thereat, inasmuch that the deed provided for the business of all special general meetings being expressed in the advertisement convening the same, and contended that the terms of the requisitions, "to take proceedings at law or equity," were too general.

Mr. ALD. WOOD was anxious that business should be proceeded with; it was his desire that any one fact should be suppressed. He was glad to find that several gentlemen of the press were present; his character had been assailed, and charges made against him by the press which were founded on a fallacious basis—had he been applied to he could have set the parties right.

Mr. ASHURST observed, that he had purposely avoided applying to Ald. Wood or to Mr. Weston, as they were implicated, in common with others, in the fraudulent concoction of the scheme. He thought that a copy of the report might be furnished them, and time allowed for their putting in their answers, in which case an adjournment might take place.

The scene which ensued it is impossible to describe. Mr. Deputy Weston, with hard words and personalities, indulged in half a dozen harangues, assisted by Mr. Wire and Mr. Hornidge. Mr. Ashurst and Mr. Taylor, with Mr. Burgess on the other side, taking part, but with more temper. Mr. Alderman Wood occasionally putting in a word, and recommending conciliatory measures—this continued for upwards of two hours. In the course of the discussion or distribution of abuse, the CHAIRMAN observed that it could not, for one moment, be supposed that the directors were influenced by any other motive than that of protecting the interests of the company, and, as an instance, stated that the interest held by two directors alone, and two shareholders, who acted in unison with them, amounted to 15,000*l.*—viz., Mr. Chappelow 5000*l.* and 6000*l.* advanced, Mr. Taylor 1100*l.*, Mr. Shaw (of Colbridge) 4000*l.* and 5000*l.* advanced, and Mr. Wild 2000*l.*, while, on the other hand, out of the seventeen persons by whom the company was concocted the only payments made were Alderman Wood 400*l.*, Mr. Deputy Weston 300*l.*, Mr. Davis 200*l.*, Mr. Alderman Hodges 400*l.*, and Mr. Fottrell 400*l.*—in all 1700*l.*, against which sum it was to be observed that four cheques had been drawn in favour of the Dublin directors, amounting to 1240*l.* 1*8s.* 6*d.*

The correctness of this statement Mr. Alderman Wood and Mr. Deputy Weston distinctly denied—both those gentlemen observing, that the directors were not in possession of accurate information—they presumed the report was drawn up in the same manner. Mr. Alderman Wood again declared he had never benefited by the company to the value of a "cheese paring;" he stood on the moral integrity which had ever characterized all acts of his, whether private or public. It was represented to him in the onset that a party was ready to purchase the property at 120,000*l.*; he had never received one shilling, but, on the contrary, had been in advance. He had volunteered to give information, but his offer had been rejected; feelings of friendship and high principle had alone governed him, and however grossly he had been calumniated, he was satisfied that he should come out of the investigation with a character untarnished by the charges which had been preferred. Mr. Alderman Wood remarked, that the accounts of which complaints were made had been audited by Mr. Chappelow (the chairman), which was replied to by Mr. ASHURST, stating, that that gentleman had been called upon to audit them at a moment's notice, and had imprudently affixed his name, without having strictly investigated the accounts.

Mr. RAWSON submitted that a middle course might be adopted with advantage to the shareholders generally—that of the appointment of a committee, to whom the report prepared by the directors should be submitted, who should be empowered to call on the parties implicated for such explanations as appeared to them to be necessary, and who, having adopted or amended such report, should submit the same at an adjourned meeting, to be held for the purpose of considering and determining on the course to be adopted. This course was also recommended by Mr. Burgess, and assented to by the directors.

A tedious and angry discussion again arose as to the nomination of the committee, which ended in the appointment of Messrs. Chappelow, Taylor, and Handasyde (the directors whose report it is to form subject of investigation), Messrs. Rawson and Williams (two proprietors), and Mr. Alderman Thomas Wood, as one of those implicated in the charges preferred. The meeting then adjourned until the 30th inst., when the report of the committee is to be submitted. The proceedings on the part of the opposition we cannot characterize otherwise than as disgraceful, and wanting in common decency. The object was achieved—that of cushioning the report for a time—and it may be expected that at the adjourned meeting another attempt will be made to prevent publicity being given to facts. If such prove effectual the shareholders have only themselves to blame.

#### BANK OF ENGLAND.

The quarterly general court of the proprietors of Bank stock was held in the Bank Parlour, on Thursday, the 16th instant, to take into consideration the declaration of a dividend, &c.

Sir JOHN PELLY (the governor) in the chair.

The minutes of the last court having been read, the GOVERNOR said that the present was a quarterly general court, and one of the half-yearly meetings appointed to consider the declaration of a dividend. It was his duty to inform the court, that the directors, having fully considered the state of the accounts of the bank, were of opinion that a dividend, if the court thought proper, should be made of 3*4* per cent. interest and profit for the half-year ending the 10th of October. He had the satisfaction of further informing them, that the dividend proposed to be made was divisible wholly out of the profits of the last half-year, leaving besides a surplus of 7725*l.* to be carried to the "rest." The governor then put the question, that a dividend of 3*4* per cent. for the half-year ending the 10th of October next be made.

Mr. WILLIAMSON—What will the amount of the "rest" be with the addition of that surplus?—The GOVERNOR—The amount of the "rest" is now 2,962,066*l.*

A discussion ensued, from which it appeared that the affairs of the bank were in a very prosperous state, and a proposition was made by Mr. THOMPSON, as an amendment, that the dividend be increased to 4 per cent., which, having been seconded, was put, and lost by a great majority.

Mr. THOMPSON asked if the report was correct, that, by the failure of Mr. John Henry Barlow, of the Stock Exchange, the bank had lost 15,000*l.*, to which the CHAIRMAN replied, that he had never heard of the circumstance, and did not even recollect ever hearing the name before. Several of the directors also denied all knowledge of the circumstance.—It was then announced that the dividend warrants would be ready on the 11th October next, when a great many proprietors left the court.

Mr. COOK then contended, at great length, that the affairs of the bank had always been administered with the best intentions, and that whatever blunders had occurred, had arisen through the exigencies of the times or Government *force majeure*. He was there to defend the directors, and at the same time to look after his own interests; and the proprietors would see, that it would be of the utmost moment to them all if they supported him in what he was about to bring the attention of Government to—viz., compensation for the infringement of their rights. He was of opinion that the present charter was nothing less than a cheat upon the proprietors, and that the directors should, before accepting it, have claimed compensation. Why were the proprietors of Bank Stock to be placed in a less favourable situation than the proprietors of East India Stock? Had not compensation, in the full sense of the word, been offered to them as well as the West India Interest, who had received no less than 2*4* per cent. interest for forty years, and the stock to be redeemed at 100 at the end of that time, and the Bank of England to be reorganised? It was no wonder that there was such an enormous difference in the value of the two securities—India Stock being now worth 260 to 300, while Bank Stock was only 150. If the proprietors read the correspondence between the Government and the court of directors, they would see the necessity of claiming



compensation.—A PROPRIETOR here rose to order, and it appearing that it was not Mr. Cook's intention to conclude with a motion, the discussion terminated, by Mr. WILLIAMSON expressing, as his opinion, that the subject discussed was better suited for a private than a public court, and he could have wished that it had been so brought forward. The only injury that he considered the establishment had suffered was, when the reduction from 8 to 3 per cent. took place on the annuity allowed by Government to the corporation. When the Bank gave up that 100,000l. a year for the renewal of the charter, and the consequent reduction took place, it was all well enough; but he considered that, when the term for which the charter was renewed had expired, the annuity of 100,000l. a year should be revived. For this sum he should certainly contend that the proprietors were entitled to compensation, because it had been secured to them by Parliament until the repayment of the sums lent by the Bank to the nation took place. That was the injury he thought the institution had suffered.—The minutes of the proceedings were then read, and, on the question, the court adjourned.

## COMMERCIAL BANK OF ENGLAND.

An extraordinary general meeting of shareholders of this company was held at the Athenaeum, George-street, Manchester, on Thursday, the 9th inst., for the purpose of receiving from the general board of directors a statement of the affairs of the company, and for such other purposes as, in and by the 9th clause of the deed of co-partnership of May 26th, 1834, are in that behalf mentioned and provided; at which meeting eighty-three shareholders, duly qualified to vote at general meetings of the said company attended.

JAMES FIELDS, Esq., in the chair.

After hearing a statement of the affairs of the company, made by the general board of directors, whereby it appeared that the losses of the company had absorbed not only the whole of the fund called the "reserved surplus fund," but also one-fourth part of the capital then paid up under the provisions of the deed of co-partnership, some discussion ensued, but no shareholder present required the dissolution of the said company.—It was proposed, seconded, and carried unanimously—"That this meeting, having heard and taken into consideration the statement of the affairs of the company, or co-partnership, called the Commercial Bank of England, now made by the general board of directors, is of opinion that it is not expedient that the said company and co-partnership should now be dissolved; but requests the general board of directors to adopt the necessary steps for dissolving the company as soon as the debts and obligations of the bank are discharged."

## GREAT NORTH OF ENGLAND RAILWAY.

The half-yearly meeting of the proprietors of this railway was held at Darlington, on Tuesday, the 7th inst.

G. H. WILKINSON, Esq., in the chair.

This being the first meeting since the opening of the line, there was a numerous attendance of proprietors, all of whom evinced the utmost satisfaction with the prospects of the undertaking.

The report was read by the secretary; it set forth, among other things, an account of the total expenditure of the company, and of the receipts up to the 30th of June last from the opening of the railway, which would give a dividend of 11. 2s. 6d. per share to the shareholders (being 3 per cent. on the amount paid for a quarter of a year).—A report of Mr. Stephenson (the company's engineer) was also read, showing the manner in which a railway communication might readily be obtained with the important and populous district of Newcastle, Shields, Sunderland, and Hartlepool. The reading of this report evidently afforded great satisfaction to the meeting.

Mr. E. OXLEY entered at great length into matters connected with the property of the company, and the benefits resulting to the public at large. In reference to the subject embraced in the engineer's report, he had the gratifying fact to state, that at a meeting of directors of various railway companies, attended by deputations from the Great North of England, the York and North Midland, the North Midland, the Midland Counties, the Leeds and Manchester, the Newcastle and Carlisle, and the Durham and Brandon Junctions, with other parties deeply interested in the subject. Resolutions were passed to the effect that a new company should be formed—that they should issue shares to the extent of 500,000l.—that interest at the rate of 6 per cent. per annum for ten years should be guaranteed in certain proportions by the different companies to the holders of shares—and that the original proprietors in these undertakings should have the offer of the shares. The intention was to take up the Great North of England line at its junction with the Stockton and Darlington Railway, to follow the Parliamentary line of the former, with some trifling deviations, to Shildcliffe, a distance of fifteen miles, and then communication would be obtained with Gateshead by means of the Stanhope, the Durham, and Brandon Junction Railways. An Act of Parliament it was proposed should be obtained, and the line leased to the Great North of England Company, which would have its management. The distance by this route is five miles longer than the original projected line, and the plan is recommended by Mr. R. Stephenson, the engineer. These resolutions will first be considered by the different boards of directors, and afterwards submitted to the proprietors in the several companies. The statement of these particulars was received with marks of approbation by the meeting, which was adjourned until October, when it is expected the whole scheme will be developed.

Two resolutions, declaring a dividend at the rate of 3 per cent. per annum, and the forfeiture of shares on which the calls had not been paid, were carried unanimously—which latter, however, will require confirming at a subsequent meeting.

The usual votes of thanks were passed, and the meeting adjourned.

## SHEFFIELD AND ROTHERHAM RAILWAY.

The annual general meeting of the proprietors of this company was held, by adjournment from the 11th of August, at the Sheffield station, on Thursday, the 9th inst., and was numerously attended.

WILLIAM VICKERS, Esq., in the chair.

Mr. BADGER read the report, which expressed the regret of the directors that the annual meeting should have been delayed so long, in consequence of their inability to obtain from the North Midland Company, according to the understanding and recognised principle of accounts, a statement of the half-year's traffic until the preceding day. Great difficulty was also experienced in separating the amount of the traffic of the local and North Midland trains, inasmuch as a portion of the company's receipts appeared in the general balance of profits arising from traffic of all kinds. In the general account, the number of passengers conveyed by the local trains during the six months ending the 30th of June, 1841, amounted to 148,623; by the North Midland trains, 66,171—making a total number of 214,794. The total sum received for traffic during the same period was 10,035l. 3s. 2d.; the total outlay being 4240l. 9s.—leaving a balance of 5795l. 14s. 2d. The directors recommended the declaration of a dividend upon the original shares of 11s., and upon the new shares (on which 7s. 10s. per share is paid) of 5s. 9d., being after the rate of 8 per cent. per annum. This would leave a balance of 7021. 14s. 2d. to carry to the reserved fund—making the amount of that fund 2995l. 6s. 10d. The directors went on to observe that they thought it to be incumbent on them to draw the attention of the proprietors to any project which had for its object the increase of the traffic of the undertaking. In a former report the directors had with that view called attention to the project for establishing a line of railway from the neighbourhood of Sileston to Doncaster, and they begged to state that, in order to remove all apprehensions upon the subject, as application would be made to Parliament during the next year for carrying out this important project.

The CHAIRMAN regretted that the traffic had not increased to a greater extent than it had, but this he attributed to the depressed state of trade, and he hoped with retaining prosperity they would have during the next six months a greatly extended trade.—After some explanations as to the cause of the delay on the part of the North Midland Company in the settlement of their accounts, the report of the directors was unanimously adopted.

Mr. S. JACKSON, in moving the payment of the dividend recommended, thought the proprietors could not claim a higher rate without seriously trenching upon the casualty fund.—Mr. BLACKWELL proposed a dividend of 10 per cent., which would leave a reserved fund of 15000l.—The original motion was carried by a large majority.

A proposition for placing 2000l. at the disposal of the directors, to be expended by them in making the necessary preliminary inquiries previously to applying to Parliament for an Act authorising the construction of the railway from Swinton to Doncaster, was negatived, chiefly on the ground that such a line would benefit the North Midland Company more than their own, and that the former should be left to take up the matter, if they thought proper; moreover, that any interference on the part of the Sheffield and Rotherham Company might plunge them hereafter to support the project, however impracticable it might turn out.—After the election of directors, and the transaction of other routine business, thanks were voted to the chairman, and the meeting separated.

## ULSTER RAILWAY COMPANY.

The usual half-yearly meeting of the proprietors of this company was held at the offices, on Thursday, the 9th inst. The report stated that the number of passengers, during the last half-year, had scarcely equalled that of the corresponding months of the previous year. During the same period, the enormous number of 13,543 passed on R. On the working of the last half-year there was a profit of 5231l. 8s. 10d., out of which a dividend of 4s. 6d. per share was declared. A third-class open carriage is about to be started. The line will be opened up to Lurgan in the first week of October, and all the way to Portadown, it is expected, by the 1st of November. The report concluded by bearing testimony to the skill and ability evinced by Mr. Dargie, the contractor.

## WORK PERFORMED BY STEAM-ENGINES,

IN AUGUST, 1841.

Tables from the official duty paper of Mr. THOMAS LEAN, of Newcastle, Curlew's stands for single; d for double; in, for inches.

Mines.	Engines.	Stroke in cylinder.	No. of strokes per min.	Av. weight of water raised.	Quantity of steam raised.	Pounds lifted 1 foot high by a bushel of coal.	Average quantity of water per min.
W. Darlington	Eastern 60 in. s	10.0	13.1	7.9	1300	70,300,000	277.75
Ditto	Halse's 60 in. s	10.0	10.3	3.34	1470	80,143,451	311.2
Gh. W. Portman	G. W. Port. 30 in. s	—	—	—	—	—	—
Ditto	Wh. Pros. 30 in. s	9.7	10.3	3.3	3300	60,301,035	308.5
Ditto	T. Downs 70 in. s	10.0	12.18	3.12	3040	44,523,067	378.4
Ditto	Wh. Friends 70 s	—	—	—	—	—	—
Ditto	Green V. 70 in. s	—	—	—	—	—	—
Ditto	Gwalton 30 in. s	—	—	—	—	—	—
Providence	30 in. s	6.0	14.08	4.3	333	32,524,113	79.39
Wheal Virgin	60 in. s	10.0	14.2	4.1	1000	47,110,333	345.4
Reliance	60 in. s	9.6	12.7	4.04	1000	37,049,393	170.0
Trevelyan	60 in. s	—	—	—	—	—	—
Duffield	60 in. s	—	—	—	—	—	—
Carleton Cons.	70 in. s	10.0	9.8	6.3	3378	43,570,333	410.34
Wheal Julia	80 in. s	—	—	—	—	—	—
Levant	30 in. s	6.0	17.3	3.8	367	33,343,143	67.9
Ding-dong	New 40 in. s	8.0	11.1	3.1	365	30,306,000	34.4
Batallack	30 in. s	6.3	10.3	3.9	100	24,350,100	24.4
Ballaaviddien	24 in. s	7.0	14.3	7.0	100	20,110,000	21.5
Godolphin	30 in. s	10.0	11.10	6.0	900	29,500,000	470.0
Great Work	W. Brage 60 in. s	9.0	8.5	3.9	700	30,101,000	260.2
Ditto	Leed's 60 in. s	8.0	14.00	3.0	1200	30,300,314	—
Wheal Vor	Horse's 80 in. s	10.0	16.7	6.04	3373	31,221,338	—
Ditto	Trevelyan's 80 in. s	10.0	16.3	3.75	2700	30,255,308	—
Ditto	Wolf's 30 in. s	8.0	16.2	6.3	1050	40,000,430	—
Ditto	Pembroke 45 in. s	8.0	13.75	3.37	801	40,820,032	—
Trevelyan	45 in. s	8.0	10.4	7.13	3000	30,300,310	—
Dunstanville	60 in. s	—	—	—	—	—	—
South Roskell	W. Chance 60 in. s	9.0	7.00	4.0	1300	30,303,530	114.5
North Roskell	New eng. 70 in. s	10.0	13.00	4.17	3045	43,710,730	303.49
E. Wh. Croft	Trevelyan 80 in. s	10.33	11.3	3.35	1333	34,641,330	190.61
Ditto	Dunstanville 30 in. s	8.0	13.9	—	—	—	—
Dolcoath	70 in. s	9.0	10.30	4.9	3370	37,013,703	332.0
Wheal Jewel	30 in. s	6.3	13.9	3.4	630	33,307,000	40.1
Police	30 in. s	10.0	7.14	6.78	3304	40,810,000	481.4
W. U. Wood	Williams' 60 in. s	10.0	10.0	10.0	1000	30,410,710	332.1
Hallenheagle	View's 70 in. s	10.0	6.3	3.5	900	33,517,040	—
Ditto	Boscow 60 in. s	10.0	10.00	6.03	1200	34,531,110	—
W. Beauchamp	Western 30 in. s	7.25	10.7	3.03	1340	33,531,000	—
Powling's 30 in. s	—	6.0	9.03	3.0	610	30,403,070	—
Wheal Ury	70 in. s	10.0	10.0	6.58	3330	37,707,133	351.7
Carn Brea	70 in. s	9.0	14.5	3.8	1100	30,100,340	100.30
Ditto	Simon's 30 in. c. c.	5.0	13.24	4.00	430	30,100,410	140.53
Tipton	30 in. s	6.33	13.30	3.15	1100	41,304,610	121.0
East Pool	60 in. s	8.75	8.2	3.7	730	31,483,430	165.3
S. Wh. Bassett	60 in. s	8.0	13.33	3.7	833	30,947,001	165.39
Consolidated	Taylor's 30 in. s	—	—	—	—	—	—
Ditto	Davey's 60 in. s	—	—	—	—	—	—
Ditto	Pearce's 60 in. s	—	—	—	—	—	—
Ditto	Wolf's 90 in. s	—	—	—	—	—	—
Ditto	Bawden's 30 in. s	—	—	—	—	—	—
Ditto	Job's 40 in. s	—	—	—	—	—	—
United Mines	Taylor's 35 in. s	11.0	11.07	3.6	1000	31,710,000	—
Ditto	Carden's 30 in. s	9.0	13.0	4.6	3332	37,017,730	—
Ditto	Simon's 30 in. s	8.0	10.0	9.0	901	31,004,000	100.30
Ditto	Loam's 30 in. s	10.0	10.0	6.3	3037	30,300,000	—
Ditto	Hocking's 30 in. s	10.0	10.07	6.05	3034	31,404,130	—
Boscow Bridge	30 in. s	10.0	7.30	3.00	300	40,000,000	100.07
S. Wh. Trowan	70 in. s	10.0	8.15	3.26	1700	40,810,330	344.3
United Hills	Williams' 60 in. s	10.0	4.50	3.03	1100	30,000,140	—
Ditto	Old, 30 in. s	8.3	6.00	9.77	430	37,400,730	370.7
Potheron	60 in. s	10.0	10.3	3.1	940	37,000,010	303.7
E. Wh. Roskell	30 in. s	8.0	14.58	3.08	870	40,301,430	331.5
Charlestown U.	30 in. s	9.0	12.3	3.0	1110	30,631,000	303.4
W. F. Consols	Union, 40 in. s	9.0	10.0	—	—	—	—
Fowey Consols	Austro's 60 in. s	10.33	13.57	3.00	1300	37,700,000	300.3
Polygoth	60 in. s	9.0	9.3	3.1	904	29,307,000	314.0

## ENGINEERS' NAMES.

Wheal Darlington, Rustie; Trevelyan, T. Tippet; Great Wheel Fortune, Grove; Providence Mine, J. West; Wheal Virgin, Grove; Reliance Mine, —; Carleton Cons., Grove; Ding-dong, Rustie; Levant, F. Mitchell; Batallack, J. Rowe; Ballaaviddien, Rustie; Godolphin, J. Sims; Great Work, Richards; Wheal Vor, Richards; South Roskell, J. West; North Roskell, J. West; East Wheel Croft, James Sims; Dolcoath, Jeffrey; Tipton, J. West; W. U. Wood, J. Sims; Police, J. Sims; Wheal Ury Wood, J. Sims; Wheal Beauchamp, Hocking and Loam; South Wheel Roskell, Dookin; United Mines, Hocking and Loam; South Wheel Trowan, J. West; United Hills, J. Sims; Charlestown United Mines, Darlington; W. Fowey Consols, W. West; Fowey Consols, W. West; Polygoth, J. Sims; Carn Brea, J. Sims; East Wheel Roskell, Hocking and Loam; Hallenheagle, J. Sims; Boscow Bridge, F. Mitchell; East Pool, J. West; Wheal Ury, Hocking and Loam; Potheron, Hocking and Loam.

## STEAM-ENGINE STAMPING ORES,

IN AUGUST, 1841.

Mines.	Engines.	Stroke in cylinder.	No. of strokes per min.	Av. weight of water raised.	Quantity of steam raised.	Pounds lifted 1 foot high by a bushel of coal.	Average quantity of water per min.
Ballaaviddien	32 in. d	9.0	9.0	9.0	1000	57,030,300	—
Charlestown U.	32 in. s	9.0	7.5	3700	450	60,043,000	—
Wheal Killy	32 in. s	9.0	—	—	—	—	—
Carn Brea	32 in. s	9.0	71.7	3700	700	70,000,000	—
Tipton	30 in. d	9.0	4.0	3030	100	40,300,000	—
Wheal Vor	30 in. d	10.0	64	3030	1000	60,000,000	—
Wh. Reeth Cons.	27 in. s	7.75	—	—	700	30,000,300	—

## ENGINEERS' NAMES.

Ballaaviddien, Rustie; Charlestown United Mines, Darlington; Carn Brea, J. Sims; Tipton, W. and J. West; Wheal Vor, Richards; Wh. Reeth Consols, Rustie.

## WHIN-ENGINES DRAWING ORES,

IN AUGUST, 1841.

Mines.	Engines.	Quantity of coal in bushels.	Av. weight of water raised.	Quantity of steam raised.	Pounds drawn one foot high by a bushel of coal.	Horse power, drawn from one foot high by a bushel of coal.
United Mines	Taylor's	245	1100	700	10,500,000	66.0
Ditto	Michell's	50	3000	700	10,000,000	100.0
Ditto	Loam's	240	8750	600	10,000,470	67.4
Ditto	Hocking's	300	15000	710	17,100,000	95.0
Charlestown U.	—	314	3000	1000	12,104,400	60.1
Fowey Consols	Davey's	974	9700	800	18,133,000	90.0
Wheal Trevelyan	East White	90	600	300	1,070,000	3.0

## ENGINEERS' NAMES.

United Mines, Hocking and Loam; Charlestown United Mines, —; Darlington, Fowey Consols, W. West; Wheal Trevelyan, T. Tippet.

The boilers are leaky at Levant, Wheal Proper, and Potheron. South Trowan engine has been working with the boilers exposed.

"The number of pumping engines reported this month is fifty-one. They have consumed 2000 tons of coal, and lifted 30,000,000 tons of water ten feet high. The average duty of the whole is, therefore, 14,000,000 lbs. lifted one foot high by the consumption of a bushel of coal."

THOMAS LEAN and SON.

SOUTH STAFFORDSHIRE COAL-FIELD.—It appears that although the South Staffordshire coal-field supports, by its mineral riches alone, a population of upwards of 200,000 individuals, it was, until of late, devoid of any institution whereby the interesting facts developed by the industrious miner could be brought to view or recorded. The formation of the Dudley and Midland Counties Geological Society will, however, doubtless, lead to other establishments of a like nature in that district.

BRISTOL AND EXETER RAILROAD.—On the arrival at the Bridgewater terminus, on Saturday last, of the four o'clock afternoon train from Bristol, the engine which brought down the train was employed, after the passengers had left the carriages, in removing the train from the down line to the other; to effect this transfer it is necessary to remove the carriages from the station to a point on the line about 150 yards distance, where proper means are provided for transferring carriages from one line of rails to the other. Between that point and the station is a crossing for coaches, &c., over the rails, the engine had already transferred some carriages from the down to the up line, and was returning for others, with its tender in front, when, on arriving at the crossing, the *Express* stopped, with passengers for Exeter, was in the act of passing over the rails. The tender struck the fore part of the coach, which it delivered to pieces; the hind wheels, with a part of the body of the coach, were flung off the line by the violence of the shock, and fell over, while the passengers were scattered about in every direction. The horses, from the complete stoppage of the coach, were liberated, and escaped with but little injury. Six persons are more or less injured.

## LOCOMOTIVE POWER ON COMMON ROADS.

We know that many men of intelligence, and even science, are sceptical as to the practicability of the application of locomotive power to common roads; but if science was repressed because of such doubts, and if experiment was abandoned because of supposed impracticability, we should never have been enabled to cross the Atlantic by the aid of steam.

Our readers are aware that Sir James Anderson has devoted his attention for many years to the accomplishment of the application of steam-carriages to the conveyance of passengers and the transmission of merchandise on ordinary roads. After long toil and enormous expenditure he has triumphed, and the application of his principles in the object of a public company, which is being formed in this country under distinguished auspices. It must be gratifying to Irishmen of every class to know that the more the test of experiment is applied to the results of native skill and industry, the more the conviction becomes prevalent that in this great object the difficulty is at an end. As an instance of this will be found by the subjoined communication, from Mr. Jasper Rogers, the partner of Sir James Anderson, who furnishes the details of an experimental trip, when a locomotive engine drew with ease a weight of five tons, at the rate of five miles per hour, on the common roads bordering on the city. Mr. Rogers was completely successful in removing the doubts of the eminent English engineer, under whose inspection the trial was made, as to the applicability of this mode of conveyance, which we trust to see speedily established on all our Irish roads.—*Freeman's Journal*.

Nottingham-street, Sept. 10.

Sir,—Having accomplished what has been stated by a large majority of engineers to be an impossibility, permit me to give you the facts of a trial made this day with one of the Steam-Carriage Company's engines, built by me here, under the patent of my partner, Sir James C. Anderson. At the request of Mr. Thomas Molyneux, an English engineer of eminence, a loaded wagon, the ascertained weight being five tons, was attached to the engine, in order to prove its power of draught, particularly upon hills. The route agreed upon was to pass over Ballingborough bridge, proceed along the Chester road, and return, passing again over Ballingborough bridge, and thence into town through Backwell-street, and return by Kilm-quay and the Strand, at the rate of four to five miles per hour. I beg to say that the engine fully accomplished its task—the rise on one part of Ballingborough bridge being proved by level to be one foot in fifteen! and over Newcomen-bridge one foot in twenty! It having been so long a received opinion, and seemed to be a fact, that locomotives could not ascend heavy hills even without any weight in draught, perhaps I may not be considered improperly intrusive to give the result of a trial which has fully overruled one of those principal theories, the industrious promulgation of which, amongst other equally fallacious, has been the means of keeping back efforts which otherwise would have been made by many, and which, had they not been so retarded, would long since have accomplished locomotion on the common roads of all civilized countries. Permit me to add, that the weight in draught of the wagon, &c., exceeded by some cwt. that of the engine, including water, &c., another fact proved in opposition to



